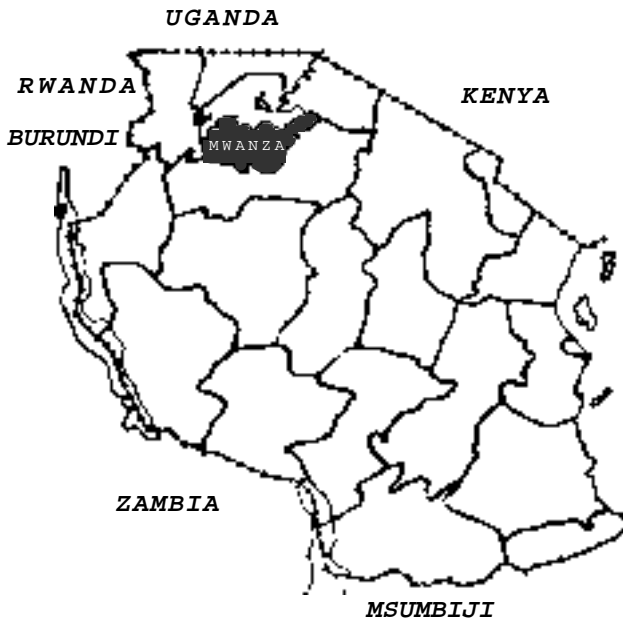




THE UNITED REPUBLIC OF TANZANIA

MWANZA REGION SOCIO-ECONOMIC PROFILE



Joint Publication by:
THE PLANNING COMMISSION
DAR ES SALAAM
and
REGIONAL COMMISSIONER'S OFFICE
MWANZA

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FOREWORD

1. *As we approach the 21st Century the problems facing rural areas in developing countries like Tanzania are numerous and formidable. Social and Economic services are deteriorating and proving to be unsustainable; school enrollment rates are declining; food situation is precarious; infant and maternal mortality rates continue to be high; unemployment is on the rise triggering off mass migration of youth from the rural areas into already overcrowded urban centres; in Mwanza Region, for example, land pressure is escalating and deforestation is going on at an alarming rate.*
2. *This situation has arisen because of many factors including ill - prepared rural development programmes and weak monitoring and supervision of the implementation of development programmes and sectoral strategies. The observed shortcomings in the policy formulation, project identification, design, and implementation in the developing countries is in turn attributed to lack of reliable and adequate data and information on the rural development process.*
3. *The publication of Regional Socio-economic Profiles series by the Planning Commission in collaboration with Regional Commissioner's offices should be viewed as a fruitful attempt towards finding solutions to the existing problem of data and information gap.*
4. *The Regional Profile series cover a wide range of data and information on geography, population, social economic parameters, social services, economic infrastructure and*

productive sectors. The publications so far have proved to be of high demand and a vital source of information to many policy makers, planners, researchers, donors and functional managers. The Planning Commission has found it a worthwhile effort to extend the exercise to cover even more regions. Readers are invited to make suggestions and constructive criticisms which can assist in improving the quality and effectiveness of future Profiles.

5. *I would like to take this opportunity to acknowledge with thanks once again the financial support of the Royal Norwegian Embassy which facilitated the preparation of the Mwanza Region Socio-Economic Profile. I would also like to thank both the Planning Commission and Mwanza Regional Planning Staff who put a lot of effort into ensuring the successful completion of this task.*



Nassoro W. Malocho (MP)

MINISTER OF STATE

PLANNING AND PARASTATAL SECTOR REFORM

October 1997

SECTION I

LAND PEOPLE AND CLIMATE

1.0 REGIONAL OVERVIEW

1.1 GEOGRAPHICAL LOCATION

Mwanza Region lies in the northern part of Tanzania, located between latitude $1^{\circ} 30'$ and 3° south of the Equator .

Longitudinally the region is located between $31^{\circ} 45'$ and $34^{\circ} 10'$ east of Green wich.

Regions bordering Mwanza region are Kagera to the west, Shinyanga to the south and south east. The north east borders Mara region. The northern part of Mwanza is surrounded by the water of Lake Victoria which in turn separates the region from neighbouring countries of Uganda and Kenya (see Map of Tanzania).

Mwanza is a relatively small region occupying 2.3 percent of the total land area of Tanzania mainland.

LAND AREA AND ADMINISTRATIVE UNITS

Mwanza region occupies a total of 35,187 sq km., out of this area 20,095 sq km. is dry land and 15,092 sq km. is covered by Lake Victoria. Thus 43% of the region's surface area is water. District wise the region is divided as shown in Table.I.1 See also figure 1 and figure 2.

Fig. 1: Distribution of surface area, Mwanza region

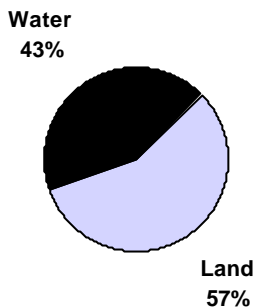
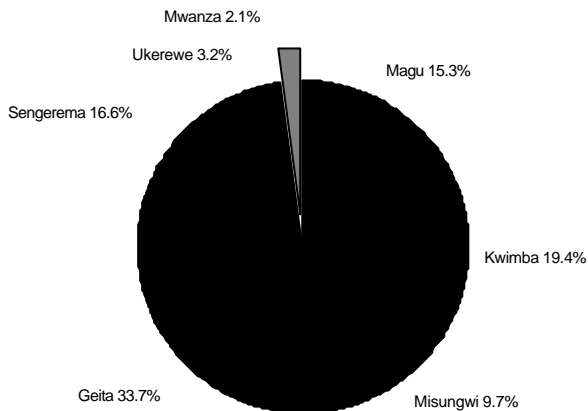


Table I.1: LAND AREA AND ADMINISTRATIVE UNITS

District	Dry Land (sq km) Area	Water Area (sq km)	Total Area (sq km)	% of Total regional Area
Magu	3,070	1,725	4,795	13.6
Ukerewe	640	5,760	6,400	18.2
Geita	6,775	1,050	7,825	22.2
Sengerema	3,335	5,482	8,817	25.1
Kwimba	3,903	-	3,903	11.1
Misungwi	1,947	175	2,122	6.0
Mwanza	425	900	1,325	3.8
Total	20,095	15,092	35,187	100

Fig. 2 Land Distribution by District in Mwanza Region



Mwanza region, which was formerly divided into six administrative districts has been reorganized into seven districts as from July 1996. Missungwi is the newly established district of the region excised from Kwimba district. The districts are divided into 33 Divisions, these in turn are further subdivided into 168 Wards. The village is the basic administrative unit. There are 682 villages in Mwanza region (Table I-2).

Table I-2: LAND AREA AND ADMINISTRATIVE UNITS, MWANZA REGION, 1997

District	Land Area Km2	Division	Wards	Villages
Magu	3,070	6	27	116
Kwimba	3,903	5	25	110
Misungwi	1,947	4	20	78
Geita	6,775	7	27	163
Sengerema	3,335	5	25	124
Ukerewe	640	4	24	74
Mwanza	425	2	20	17
Total	20,095	33	168	682

Source: Mkakati wa Maendeleo Mkoani Mwanza 1996 - 2001 (1997).

1.2 ETHNIC GROUPS:

The main ethnic groups in Mwanza region are the Sukuma, Zinza, Haya, Sumbwa, Nyamwezi, Luo, Kurya, Jita and Kerewe. The Sukuma dominate by constituting over 90 percent of the population. The rest of the groups constitute in various small proportions. They are mainly in the Mwanza Municipal area. The Sumbwa and Zinza are mostly found in Geita and Sengerema districts respectively. National policy gives very little importance to ethnic grouping and information related to this issue is difficult to come by .

1.3 POPULATION SIZE GROWTH AND DENSITY:

Mwanza region has the largest population of any region in Tanzania. It has a population of 1,878,271 according to the 1988 census (Table I-3). This was about 8.1 percent of the total population of Tanzania mainland which was 23,174,443. Table I-4 highlights 1967, 1978 and 1988 Mwanza region's population size by district. Observation of census data shows how the population of Mwanza region is unevenly distributed over the regional land area. Geita district had the highest population number followed by Kwimba and last of all by Ukerewe. Between the 1967 and 1988 censuses the region's population increased by 76 per cent that is from 1,064,883 to 1,878,271. Annual growth rates by district provide projections of district populations for the years 1995, 1998 and 2000 (Table I-4).

Table I-3: POPULATION PROJECTIONS BASED ON 1978/88 AVERAGE GROWTH RATES, MWANZA REGION

District	1967 Census	1988 Census	Population Projections		
			1995	1998	2000
Magu	243,822	310,918	358,200	415,016	439,434
Kwimba	305,516	428,135	292,343	303,532	320,142
Misungwi	-	-	237,397	250,284	263,983
Geita	371,407	439,191	585,545	662,728	719,565
Sengerema	-	304,121	361,238	305,608	412,907
Ukerewe	109,277	172,893	204,179	215,455	225,127
Mwanza	34,861	223,013	268,734	29,095	307,026
Total	1,064,883	1,878,271	2,307,636	2,523,718	2,688,184

Source: 1967 and 1988 Population Census Reports.

Fig. 3: Population Projections based on 1978/88 Average Growth Rates in Mwanza Region by District

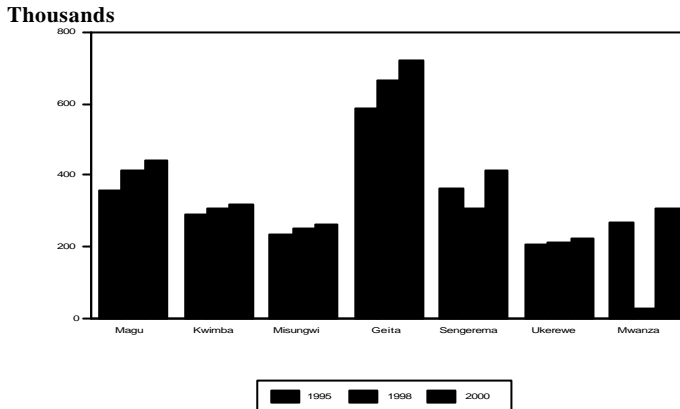


Table I-4: POPULATION PROJECTIONS BASED ON 1978/88 DISTRICT GROWTH RATES, MWANZA REGION

District	1967 Census	1978 Census	1988 Census	Population Projections			Annual growth rates 1978-88
				1995	1998	2000	
Magu	243,822	258,777	310,918	358,200	415,016	439,434	1.8
Kwimba	305,516	325,295	428,135	292,343	303,532	320,142	2.7
Misungwi	-	-	-	237,397	250,284	263,983	2.7
Geita	371,407*	307,421	439,191	585,545	662,728	719,565	3.6
Sengerema	-	243,630	304,121	361,238	385,608	412,907	2.2
Ukerewe	109,277	138,729	172,893	204,179	215,455	225,127	2.2
Mwanza	34,861	169,527	223,013	268,734	291,095	307,026	2.7
Region	1,064,883	1,443,379	1,878,271	2,307,636	2,523,718	2,688,184	2.6

* The figure is high because Geita District included Sengerema District then

Source: 1967, 1978 and 1988 Population Census

It is projected that by the year 1998 and 2000 the region's population will be 2,523,718 and 2,688,184 respectively. Mwanza region did not only rank highest in population size in 1988 but also took the lead in population density at 93.5 people per sq.km. This excludes Dar es Salaam region. Dar es Salaam because of its metropolitan nature had 976.9 people per sq. km. (Table I-5). The table also compares population densities of mainland regions in both 1978 and 1988 census. The population density of Mwanza region increased from 71.8 to 93.5 persons per sq. km. between 1978 and 1988,. This is an increase of 31 percent.

It is projected that by the year 2000 the region's population density will be 133.8 people per sq. km. This population density in the year 2000 will aggravate the already serious pressure on land. Natural increase and inter-regional immigration will be the contributing factors to this alarming size of the population.

Table I-5: TANZANIA MAINLAND POPULATION AND POPULATION DENSITY AND PERCENT INCREASE (1978-1988) BY REGION

Region	1988 Census	Densities Per Sq. Km.		Percent Increase 1978/1988
		1978 Census	1988 Census	
Mwanza	1,878,271	71.8	93.5	31
Dodoma	1,237,819	23.5	30.0	28
Arusha	1,351,675	12.4	16.5	29
Kilimanjaro	1,108,699	68.1	83.7	22
Tanga	1,283,636	38.9	48.1	23
Morogoro	1,222,737	13.3	17.3	30
Coast	638,015	15.9	19.6	24
Dar es Salaam	1,360,850	553.2	976.9	77
Lindi	646,550	6.6	9.8	53
Shinyanga	1,763,960	26.1	34.9	34
Mtwara	889,494	46.2	53.2	15
Ruvuma	783,327	8.9	12.3	38
Iringa	1,208,914	16.2	21.3	31
Mbeya	1,476,199	12.9	24.5	37
Singida	791,814	11.3	16.0	45
Tabora	1,036,293	10.7	13.6	27
Rukwa	694,974	8.0	10.1	23
Kigoma	853,263	17.5	23.1	32
Kagera	1,326,183	35.5	46.6	32
Mara	970,942	33.2	43.7	49

Total	23,174,443	19.8	26.2	32
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Source: 1988 National Profile: Analytical Report (1988 Census).

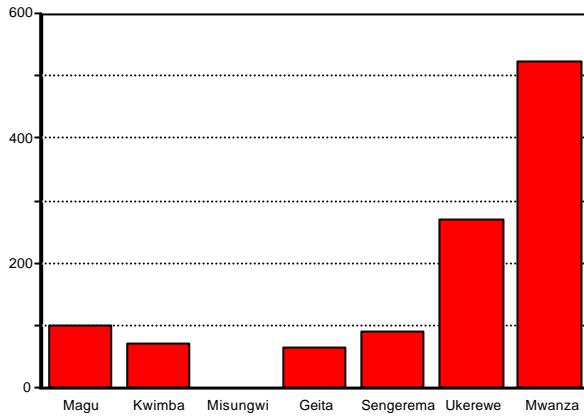
The island of Ukerewe had by far in 1988 the highest population density of all the Mwanza region's rural districts with 270 people per sq. km. (Table I-6). These population statistics of 1988 therefore reveal two major problems in the region. They are that of high population number and that of land pressure (high population density). These factors raise serious concern and for sure call for urgent action including formulation of regional comprehensive programmes which counteract these factors.

Table I-6: POPULATION DENSITY AND DISTRIBUTION BY DISTRICT, MWANZA REGION - 1988

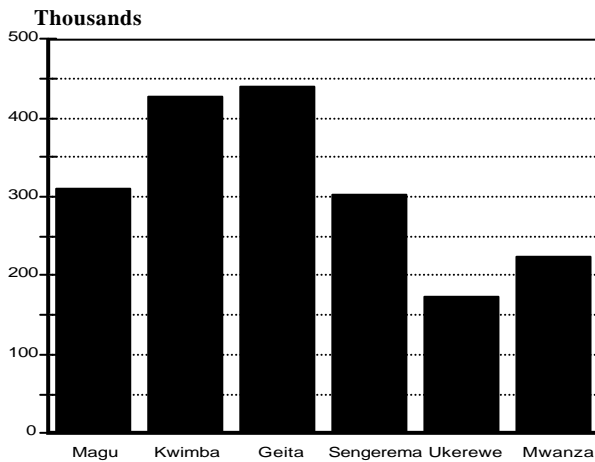
District	Land Area km2	Census 1988 Population	Population Density 1988	Estimate 1995 Population	Estimate 1995 Population Density	Estimate 2000 Population	Estimate 2000 Population Density
Magu	3,070	310,918	101.0	358,200	116.7	439,434	143.0
Kwimba	3,903	428,135	73.0	292,343	74.8	320,142	81.9
Misungwi	1,947	-	-	237,397	121.9	263,983	135.6
Geita	6,775	439,191	64.8	585,545	86.0	719,565	106.0
Sengerema	3,335	304,121	91.2	361,238	108.3	412,907	123.8
Ukerewe	640	172,893	270.0	204,179	319.0	225,127	351.8
Mwanza	425	223,013	525.0	268,734	632.3	307,026	722.4
Total	20,095	1,878,271	93.5	2,307,636	114.8	2,688,184	133.8

Source: 1988 Population Census

Fig. 4: Population Density by district in Mwanza Region, 1988 Census



Fi. 5: Population Distribution by district in Mwanza Region, Census 1988



According to the 1988 population census Geita and Kwimba districts had about 46.2 of the region's total population but they had the lowest population density of 64.8 and 73.0 people per sq. Km. respectively. (Tables I-6 and I-7). Further observation on population structure of 1988 reveals that 81.8 per cent of the region's population live in rural areas the rest in urban areas. However the proportion between the sexes in both rural and urban areas is 50:50 (Table I-8). Further scrutiny of the census data of 1988 shows that household size is virtually the same in all the districts. This average is 6.4 people/household.

Table I-7: PROPORTION OF MWANZA REGION POPULATION OF EACH DISTRICT AS A PERCENTAGE OF THE REGION TOTAL, 1967, 1978, 1988

District	1967		1978		1988	
	Population	Percentage	Population	Percentage	Population	Percentage
Magu	243,822	22.9%	258,777	18.0%	310,918	16.5%
Kwimba	305,576	28.7%	325,295	22.5%	428,135	22.8%
Misungwi	-	-	-	-	-	-
Geita	371,407	34.9%	307,421	21.3%	439,191	23.4%
Sengerema	-	-	243,630	16.9%	304,121	16.2%
Ukerewe	109,277	10.2%	138,729	9.6%	172,893	9.2%
Mwanza	34,861	3.3%	169,527	11.7%	223,013	11.9%
Total	1,064,883	100%	1,443,379	100%	1,878,271	100%

Source: 1967, 1978 and 1988 Censuses

Fig. 6: Population Distribution for 1967, 1978 and 1988 Population Census in Mwanza Region by District

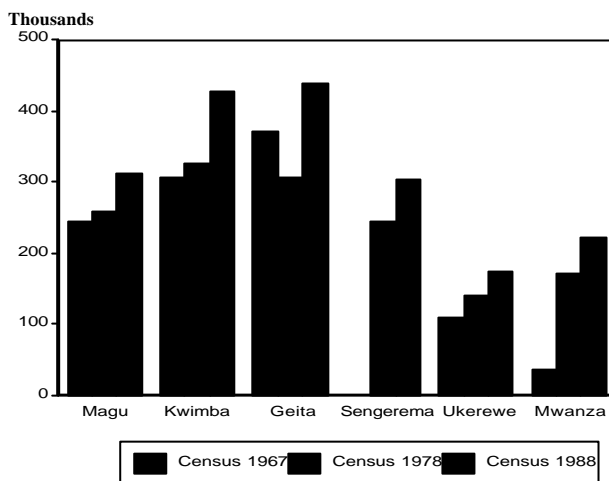


Table I-8: POPULATION OF MWANZA REGION BY DISTRICT, SEX AND URBAN/RURAL FOR 1988

District	RURAL			URBAN			Grand Total
	Male	Female	Total	Male	Female	Total	
Magu	133,508	138,746	272,254	19,358	20,297	39,655	311,909
Kwimba	195,904	207,578	403,482	11,661	12,651	24,312	427,794
Misungwi	-	-	-	-	-	-	-
Geita	190,478	186,429	376,907	34,447	27,668	62,115	439,022
Sengerema	141,858	140,352	282,210	10,305	11,391	21,696	303,906

Ukerewe	74,755	78,296	153,051	9,384	10,546	19,930	172,981
Mwanza	24,797	24,080	48,877	87,468	84,819	172,287	221,164
Total	761,300	775,481	1,536,781	172,623	167,372	339,995	1,878,271

Sources: 1988 Population Census

Fig. 7: Population Distribution of Mwanza Region by District Urban and Sex

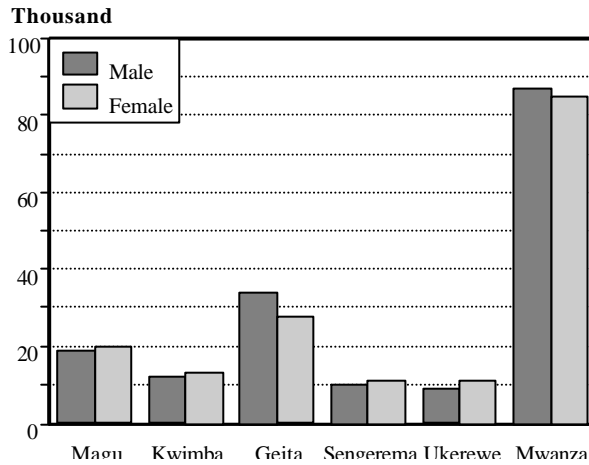
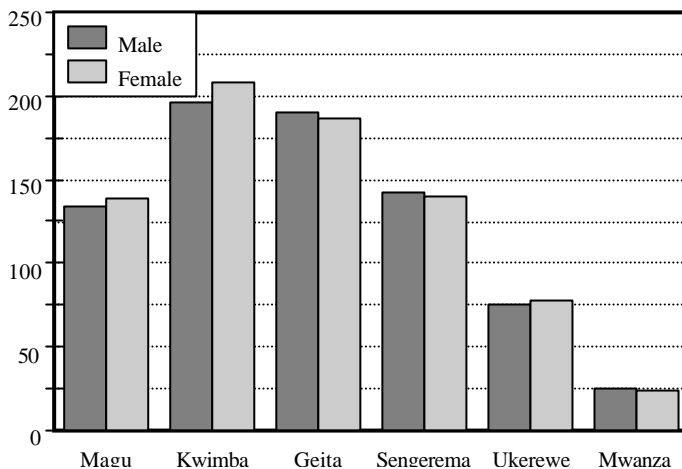


Fig. 8: Population Distribution of Mwanza Region by District Rural and Sex

Thousand



The exception is in Mwanza district which is 5.2 (Table I-9). The individual district household averages raise some concern when compared with the national (mainland) household average of 5.3. It is difficult to advance an explanation for these high levels of household size. One may speculate that a low level of family planning awareness among the families, particularly those from the rural areas is responsible. This situation could also be attributed to high fertility in the female group and a high incidence of polygamy.

Table I-9: POPULATION BY SEX, NUMBER OF HOUSEHOLDS, AVERAGE HOUSEHOLD SIZE AND DISTRICT, MWANZA REGION 1988

District	Sex			Number of Household	Average Household Size
	Male	Female	Total		
Magu	152,374	158,544	310,918	48,016	6.4
Kwimba	207,393	220,742	428,135	63,876	6.7
Geita	224,856	214,335	439,191	66,802	6.5

Sengerema	151,899	152,222	304,121	46,417	6.5
Ukerewe	84,059	88,834	172,893	25,129	6.8
Mwanza	113,779	109,234	223,013	42,722	5.2
Total	934,360	943,911	1,878,271	292,962	6.4

Source: 1988 Population Census: Regional Profile (Mwanza)

Table F10 and F11 indicate the population in each age group. Children aged between 0-14 years constitute 45.7 percent of the total regional population, while adults aged 15-44 years account for 41.5 percent. The dependant group 0-14 and 65 years and above constitute 49.5 percent of the total regional population. The productive group, those aged 15-64 years comprise 50.5 percent of the population.

The 49.5 percent of the regional population numbering 929,261 are non productive. They depend on the 50.5 percent who number 949,010.

**Table I-10: POPULATION BY DISTRICT AND BY AGE GROUP
MWANZA REGION 1988**

Age Group	Magu	Kwimba	Geita	Sengerema	Ukerewe	Mwanza	Total
0-4	53,297	74,330	78,489	53,294	28,475	34,597	322,482
5-9	48,748	67,465	66,626	48,315	27,676	29,266	288,096
10-14	42,627	58,287	54,978	41,963	25,061	25,055	247,971
15-24	59,492	82,689	86,897	57,006	32,083	50,550	368,717
25-34	41,573	55,021	65,334	39,533	21,133	39,247	261,841
35-44	24,779	32,003	35,916	23,387	12,422	19,985	148,492
45-54	17,335	25,787	22,984	18,016	9,405	10,756	104,283

55-64	11,810	15,604	14,025	11,097	7,279	5,862	65,677
+65	11,257	16,940	13,942	11,510	9,359	7,695	70,712
Total	310,918	428,135	439,191	304,121	172,893	223,013	1,897,271

Source: 1988 Population Census, Mwanza Regional Profile

Fig. 9: Population Distribution by district and Age Group in Mwanza Region, 1988

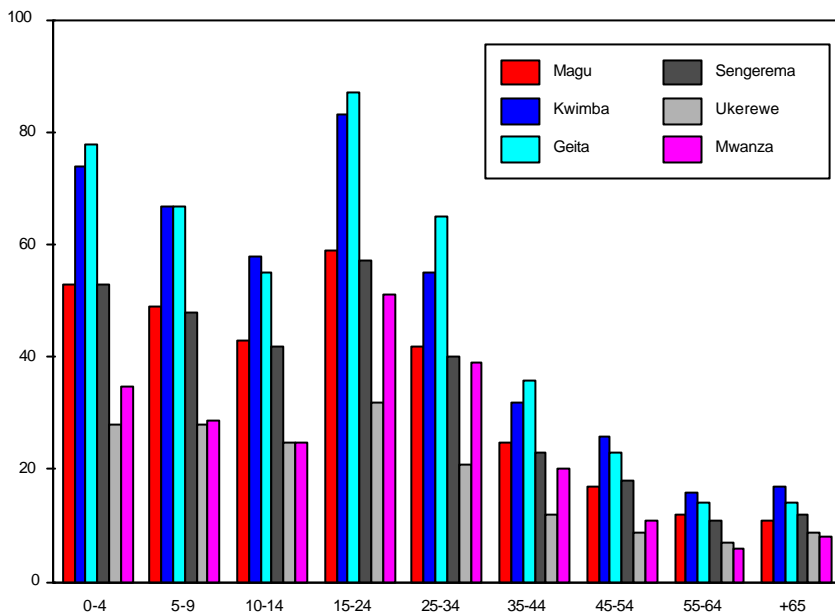
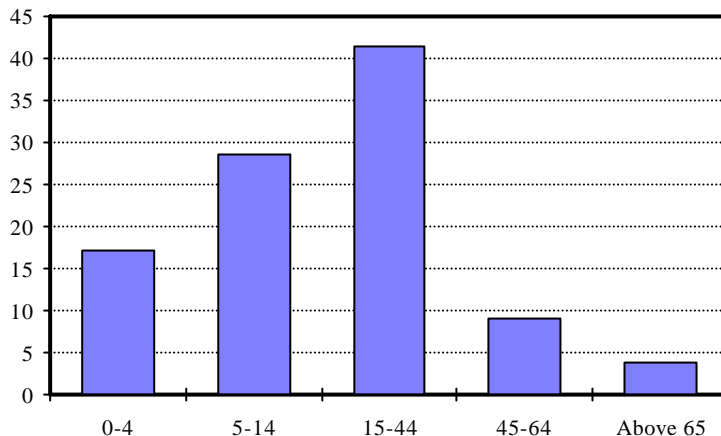


Table I-11: PERCENTAGE DISTRIBUTION BY AGE GROUP 1988 MWANZA REGION

Age Group (Years)	Percentage
0-4	17.2
5-14	28.5
15-44	41.5
45-64	9.0
Above 65	3.8
Total	100

Source: 1988 Population Census, Mwanza Regional Profile

Fig. 10: Percentage Distribution by age group in Mwanza Region, 1988



Comparison of the proportion of the dependant group among the Mwanza districts show no significant difference. It ranges from 48.7 percent for Geita to 52.4 percent for Ukerewe. Again, Mwanza district is the exception. This district shows a lower dependant proportion of 43.3 percent. The situation is accounted for by two basic reasons firstly, the low average household size of 5.2 and secondly the urban population appear to understand family planning advocacy better and hence the advantages of a small and manageable family. Unlike their rural counterparts they require little further education on the issue.

1.4 **MIGRATION:**

Migration has been defined by demographers as that form of geographic mobility involving a change of usual residence between clearly defined geographic units. A change in the population of an area can be brought about by births, deaths and migration. In most cases births bring very substantial changes, however, migration can

be a very significant factor and may change greatly the population of an area, such as a district or a region. Major reasons forcing people to migrate are search for new farming land, better pasture and water for their livestock and in search for a better life through employment opportunities. Using data from the 1988 population census, Table I-12 gives information on lifetime migration pattern for the Tanzania mainland regions. The situation for Mwanza region shows lifetime out-migration was 303,646, while lifetime in-migration was 270,142. This means more people moved out than those who moved in the region, giving a net lifetime migration of- 33,504. The fact that more people moved out of Mwanza region is something one could expect. The outgoing population was forced to do so because of the existing serious land pressure for both farming and livestock keeping.

Fig. 11: Distribution of Life Time Gross Migration in Mwanza Region to the Total Gross Migration in Tanzania (1988 - Population Census)

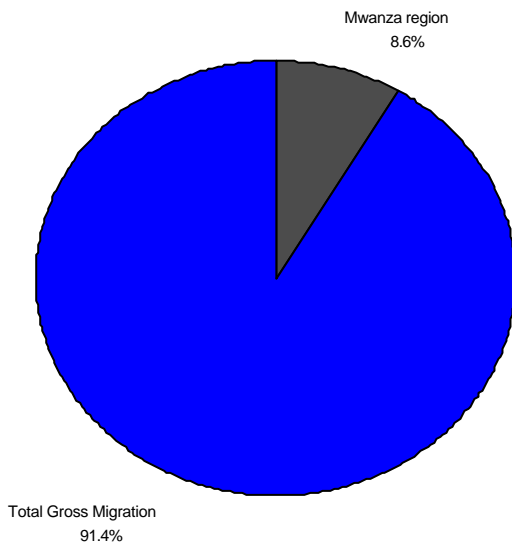


Table I-12: LIFE TIME MIGRATION BY REGION, TANZANIA (1988-CENSUS)

Region	Life Time In Migration	Life Time Out Migration	Net life Time Migration	Gross Migration
Dodoma	89,900	190,985	-101,085	280,885
Arusha	218,427	76,703	141,724	295,130
Kilimanjaro	93,040	217,423	-124,383	310,463
Tanga	98,747	150,915	-52,168	249,662
Morogoro	172,393	141,956	30,437	314,349
Coast	103,804	207,716	-103,912	311,520
Dar es Salaam	651,246	150,625	500,621	801,871
Lindi	95,200	145,031	-49,831	240,231
Mtwara	46,299	144,988	-98,689	191,287
Ruvuma	66,442	81,661	-15,219	148,103
Iringa	49,282	169,480	120,198	218,762
Mbeya	160,377	113,378	-46,999	278,755
Singida	86,651	130,531	-63,880	237,182
Tabora	241,729	175,359	66,370	417,088
Rukwa	87,599	49,294	38,305	136,898
Kigoma	26,795	129,718	-102,923	156,513
Shinyanga	288,210	281,447	6,763	569,657
Kagera	103,713	109,693	-5,980	213,406
Mwanza	270,142	303,646	-33,504	573,788
Mara	75,982	115,865	-39,878	191,852
Total	3,025,983	3,106,414	-80,431	6,132,397

1.5 **EMPLOYMENT:**

According to the 1988 Population Census 81.8 per cent of Mwanza regional population was rural. Therefore, one would expect the economically active population in the region engage in the agricultural sector. The declining productivity of the agricultural resources in all the region's districts with the exception of Geita and Sengerema has tended to discourage many subsistence family. Unreliability of rainfall, increasing land infertility, the high cost of fertilizers and pesticides are responsible. Most serious of all, land shortage, has reduced their dependence on agriculture as an economic activity. It cannot meet the year round economic needs of the peasant farmer. Many of the young people within the economically active group are reluctant to join this sector. Their low opinion on agriculture has made a large number of these economically active young people to prefer under-employment or even unemployment. Here and there, they attempt petty businesses which cannot meet their high hopes. As a last resort they are forced to seek other employment opportunities in towns where again the majority end up in disappointment. If the agricultural sector could have been well developed or at least to a moderately attractive level, it could provide major employment opportunities for the new generation and their descendants.

The continuous decline of agricultural productivity and in its various forms will mean more and more people getting out of it and attract less and less of the young people. This seemingly endless economic problem will continue to get more and more serious if no urgent corrective measures are taken.

Mwanza being one of the Lake regions, the fishing sector is gaining more and more importance in the zone. It is estimated that currently about 28,000 people in the Lake zone (fishermen, workers in the fish factories, auxiliary industries and services etc) are making a living out of the fishing industry particularly among those residing along the lake shores and on the islands. This is a new potential employment opportunity and if it could get fully developed and its resources maximally utilized, enormous employment opportunities in the region and the zone as a whole could be realised

1.6 CLIMATE AND SOILS:

The average annual rainfall of Mwanza region is about 930 mm varying from 1,800 mm in the western parts of Ukerewe island to 750 mm in the southern and south eastern parts of the region. Under normal conditions the rainfall is distributed mainly during two periods, namely the short rains in October-December and the long rains from March to May. There is a dry spell from January to March and frequently these rains are of an erratic pattern. Farmers respond to this situation by staggered planting of crops over a period of many weeks. The rain tends to fall in localized storms rather than in a generalized downpour and so may be unevenly distributed in quite a small area. Water erosion tends to increase with the length of the dry season and the weaker vegetation cover.

The soils of Mwanza region can be classified into three major groups:-

- (a) Sandy soils derived from granite
- (b) Red loams derived from limestone
- (c) Black clays

The first group of soils are only of very moderate natural fertility and steadily deteriorate under conditions of continuous cultivation. The second two groups are of very much higher potential but tend to be found in areas of low rainfall. Most of the population live on the sandy soils.

In the past, soil fertility was restored through fallowing but with increasing population pressure, this is no longer practical in many areas. In consequence, there has been a decline in the soil pH, in the quantity of organic matter and in nutrient status. Generally, once soils have been overworked they tend to respond less and less to inorganic fertilizers. Soil exhaustion probably accounts for most of the decline in cotton yields, and for the limited impact of fertilizers.

1.7 **AGRO-ECONOMIC ZONES AND TOPOGRAPHY:**

Mwanza region varies considerably in agricultural and demographic characteristics from place to place. The choice of an agricultural development strategy, the basis of any programme, should be tailored as closely as is practical to local conditions. The division of the Region into agro-economic zones will provide guidelines along which to channel future efforts. For Mwanza region six (6) agro-economic zones were identified between 1970 and 1973. These zones are not in conformity with present administrative boundaries.

(a) **Zone I:**

An area of reasonably dependable rain fall (greater than 900 mm average) with adequate land. A generally undulating topography with the soils varying from the red friable clays north of Geita town to the more dominant brown, the yellow-red loamy sands and sands found elsewhere.

Population densities are relatively light and the farming system is cotton, cassava, beans and livestock with bananas also playing a major part in the north-west area of the zone.

There is a major forest plantation at Buhindi in the north of the zone and a number of gazetted forest reserves. Administrative Divisions within the zone are: Butundwe, Bugando, Kasamwa, Geita, Busanda, Kahunda and Buchosa.

(b) **Zone II:**

An area of high population densities (human and livestock) with the consequent pressures on land use and a marked degree of overlap and competition between human and livestock requirements.

The rainfall is moderate (greater than 900 mm) but unreliable (20% probability of less than 850mm). The soils are red to yellow-red, gritty sandy clay loams which are widely cultivated; poorly drained and wet greyish loamy sands and black clays.

The major crop grown in the zone are cotton, cassava and maize on both sides Smith sound. There is a large flat “mbuga” area running from Smith sound into the south east of the zone (Missungwi) where fairly large areas of cereals are cultivated with chickpeas as a follow-on crop.

The following administrative divisions are within zone II: Katunguru and Sengerema in Sengerema district, Ilemela and

Busagala in Mwanza district and finally Missungwi (formerly in Kwimba district).

(c) **Zone III:**

This zone constitutes the majority of the areas known as the “Sukuma Heartland” which was the originally settled area. The population densities are very high though there is a slight decrease towards the eastern end of the zone in Kivukoni Division.

The soils of the zone are of the typical “Sukuma Catena” of granite inselbergs with a progression yellow-red “hillsands” to the poorly drained dark grey loam sands and clays of the valley bottoms, and low lying plains.

The rainfall pattern is markedly erratic and undependable. The average annual rainfall is of the order of 700-850 mm.

A large proportion of the population in the zone is concentrated along the lake shore with the competitive pressures on the land being very high. Soils are grossly overworked and there is a general shortage of land with which to meet nutritional, personal and social requirements. The major crops are cotton and cassava with fishing as a major activity outside of farming. In the western areas of the zone milking of the traditional herd is an important cash generating activity.

This zone is a critical area in terms of land/population relation. Out migration of people and livestock to the areas

of surplus land in western Geita is the traditional solution to the problem of land deficit in the zone.

Division constitute zone III are:-

Sanjo, Kahangara, itumbili, Busega and Kivukoni, all in Magu district.

(d) **Zone IV:**

An area of moderate to high population and livestock densities with an average rainfall of 800 to 900 mm.

The topography of the area is one of isolated hill-masses and ridges, with wide plains. The soils vary from relatively small areas of hillsands to large areas of poorly drained or waterlogged greyish loamy sands and black clays. Some of these lower lying soils at the junction of the hillsands and the “mbuga” clays are capable of “panning” and on these areas rice is grown in substantial amounts. The major crops are cotton, sorghum, rice and cassava.

Administrative divisions within the zone are:-

Msalala and Nyang’wale in Geita district Nyanchenche in Sengerema district; Mbarika and Inonelwa in Missungwi district, Ngudu, Ngula and Ibindo in Kwimba district, Ndagalu in Magu district.

(e) **Zone V:**

A predominately flat to depressed areas with very few isolated hillmasses and granitic tors (rocky hills). The soils are almost exclusively poorly drained to water logged grey loamy sands and black clays. The average annual rainfall is between 750 and 900 mm. Though unreliable it is to a certain extent compensated for by the high water retaining capacity of the soil.

The population and livestock densities are moderate though the extent of the cultivation of the areas is quite high. This is largely due to the dominance of oxmechanisation as the basic agricultural technology. The major crops are maize and chickpeas with cotton and cassava as secondary crops.

Divisions within the zone are Ng'wamashimba and Nyamilama.

(f) **Zone VI:**

An area very density populated with an average rainfall of 1200 mm and reliable. The islands of Ukerewe fall within this zone.

The soils of these islands are of a sandy type and arable land is very limited.

Main crops grown are:-

Cotton, cassava, coffee, paddy, sweet potaotes and fruits.

The following administrative divisions are within the zone: Ilangala, Ukara, Mumulambo and Mumbuga.

SECTION II

2.0 REGIONAL ECONOMY:

2.1 INTRODUCTION:

The main economic activities carried out by Mwanza region's population are agricultural production, livestock keeping and to a significant extent fishing. There is no commercial farming in the region. Subsistence farming is the main form of farming. Food crop production is carried out on a family basis aimed at producing food to meet its food requirements. Because of the prevailing unfavourable weather, adverse soil conditions and scarcity of land to meet family needs; the region in most times is unable to feed itself. Food has to be imported from other regions. Surplus production realised in Geita and some parts of Sengerema fail to bridge the food gap.

2.2 GDP AND PER CAPITA GDP:

Mwanza region possesses great development potential and which is relatively well developed. Over 40 percent of the country's out-put of cotton comes from Mwanza. The region is also a cattle and fish producing area with a relatively well watered zone which borders on to Lake Victoria.

It has been stated earlier that small scale farming dominate the agriculture and livestock sector. The sector offers employment to about 85 percent of the regional population. Agriculture constitutes about 53 percent of the total regional income through agricultural production mainly of cotton, maize, rice, millet, cassava and fruits.

The fishing industry is developing very fast and its potential in offering gainful employment is getting realised particularly after the establishment of fish fillet factories in the region.

Fishing activities are mainly carried out in areas along the shores of Lake Victoria through traditional methods. Commercial fishing is carried out by big companies using modern fishing gear and vessels.

With over 1.6 million livestock units in the region, the livestock sector could have contributed much to the region's development. In general the potential of this sector is far from being fully realised.

Mining in the past years has been dominated by small scale gold miners in Geita district. Currently commercial gold mining companies are in exploration stages and soon the region will be experiencing revival and real boom of the economy when mining starts.

Table II-1(a) shows the steady growth of regional GDP at current prices from Tsh.2.835 billion in 1980 to Tshs.107.553 billion in 1994. The GDP per capita at current prices shows a similar pattern of growth over the years. However, when GDP per capita is translated in terms of US dollars the picture shows a steady decline since 1986 in the purchasing power of the people of Mwanza region.

In 1980, the base year, the T.shilling then stood at 8.22 to the dollar. The value of the shilling started to fall gradually from 1982 and drastically did so in 1986 when it was 51.70 to one US dollar. In terms of dollars the per capita GDP pointed towards a positive general growth pattern from 1980 to 1985 when this changed very dramatically and plunged downwards. In real monetary terms the per capita economic power fell down by 60.68 per cent between 1985 and 1986. The unhealthy economic decline continued

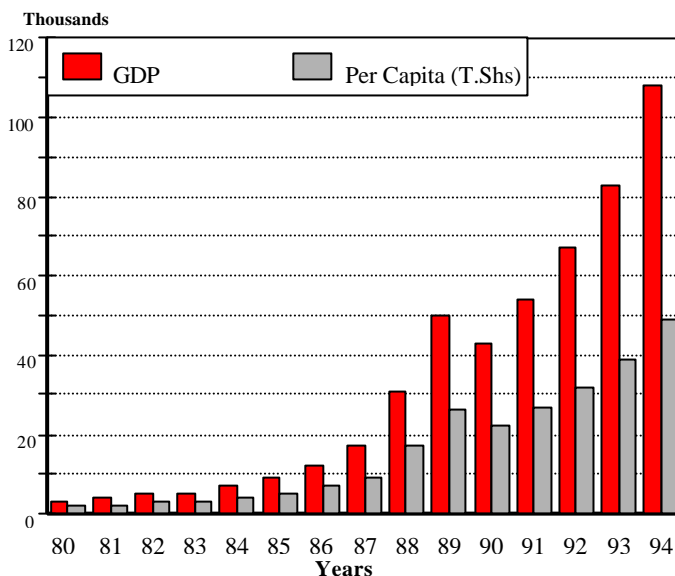
unchecked right up to 1994. This meant, in real terms the residents of the region progressively got poor and poorer.

Table II-1(a): THE GDP AND PER CAPITA GDP OF MWANZA REGION AT CURRENT PRICES AND PERCENTAGE CHANGE 1980-1994

Year	GDP at current prices in (Tshs. Millions)	% change	Per Capita GDP at Current Prices (Tshs.and in USA Dollars)			% Change	Average % cotribution to National GDP
			Tshs.	Exchange Rate Tshs./Dollar	U.S.A Dollars		
1980	2,835	-	1,886	8.22	229	-	8
1981	3,821	34.78	2,451	8.35	294	29.52	8
1982	4,651	21.72	2,908	9.52	306	4.08	8
1983	5,305	14.06	3,233	12.44	260	-15.03	9
1984	6,599	24.39	3,919	18.16	216	-16.92	9
1985	9,210	39.57	5,332	16.50	323	49.54	9
1986	11,658	26.58	6,578	51.70	127	-60.68	9
1987	16,611	42.49	9,135	83.70	109	-14.17	9
1988	31,313	88.51	16,706	125.00	134	22.94	8
1989	49,837	59.15	25,854	192.00	135	0.75	7
1990	42,802	-14.12	21,592	197.00	110	-18.52	6
1991	54,299	26.86	26,635	234.00	114	3.64	7
1992	66,708	22.85	31,819	335.00	95	-16.67	6
1993	83,474	25.13	38,716	480.00	81	-35.79	6
1994	107,553	28.85	48,508	553.00	88	8.64	6
Ave.	33,111.8		16,350.1		174.6		7.7

Source: Planning Commission Based on National Accounts of Tanzania 1994, and August 1995

Fig. 12: The GDP and Per Capita of Mwanza Region at Current Prices, 1980 - 1994



Despite its potential, Mwanza region does not have a particularly high level of economic performance when measured by per capita gross regional product. The following table II-1(b) shows sample regions' per capita GDP. Mwanza ranks 10th amongst 12 selected regions with 48,508 Tshs. per annum followed by Mara and Dodoma with 43,748/= and 39,604/= respectively. The highest among the list is Arusha with 91,024/= followed by Rukwa with a per capita GDP of 80,669/=. However, if terms of regional GDP annual contribution, Mwanza region ranks 3rd after Dar es Salaam and Arusha for the period 1980-1994 9 (TableII-2). Their average annual GDP percentage contributions were 20.33, 7.80 and 7.67 respectively.

When further comparisons of per capita GDP are made amongst Lake Zone regions, Mwanza region still lags behind Shinyanga and Kagera for the years 1992-1994. In terms of annual GDP earnings

for the period from 1990 to 1994 Shinyanga region still takes the lead and Mwanza takes second place (Table II-3).

Table II-1(b): GDPs AND PER CEPITA GDPs FOR SOME SELECTED REGIONS 1994

Region	GDP (in millions) Tshs.	Ran k	Per Capita GDP	Ran k
Mwanza	107,553	4	48,508	10
Mara	50,127	11	43,748	11
Kagera	80,537	7	50,105	8
Shinyan ga	110,353	2	52,746	6
Iringa	92,021	4	64,502	3
Mbeya	84,903	6	48,737	9
Ruvuma	48,565	12	52,537	7
Rukwa	66,160	8	80,669	2
Dodoma	57,856	9	39,604	12
Arusha	145,192	1	91,024	1
Singida	51,995	10	55,644	5
Morogor o	88,073	5	59,370	4

Source: National Accounts of Tanzania 1976-1994 11th Edition August 1995

Table II-2: AVERAGE ANNUAL REGIONAL GDP CONTRIBUTION TO THE NATIONAL GDP (1980-1994)

Region	Average Annual GDP Contribution (%)	GDP Contribution Ranking
Dar es Salaam	20.33	1
Arusha	7.80	2
Mwanza	7.67	3
Mbeya	6.00	4
Shinyanga	5.80	5
Iringa	5.53	6
Tanga	5.52	7
Morogoro	4.67	8
Kagera	4.60	9
Kilimanjaro	3.67	10
Mara	3.47	11
Tabora	3.40	12
Ruvuma	3.33	13
Mtwara	3.27	14
Rukwa	3.13	15
Dodoma	3.07	16
Singida	2.87	17
Kigoma	2.53	18
Lindi	2.00	19
Coast	1.00	20
Total	100	

Source: Planning Commission: Based on National Accounts of Tanzania 1976-1994, August 1995.

Fig. 13: Average Annual Regional GDP Contribution of Mwanza Region to the National GDP (1980 -1994)

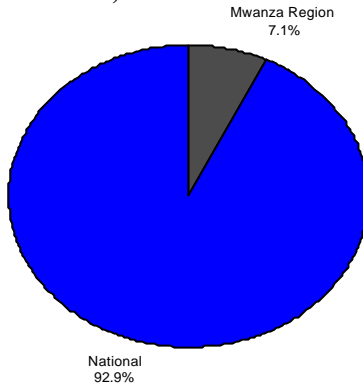


Table II-3: REGIONAL GDPs AND PER CAPITA GDPs FOR MWANZA KAGERA, MARA AND SHINYANGA IN MILLION TSHS(AT CURRENT PRICES)

Year	Mwanza		Kagera		Mara		Shinyanga	
	GDP	Per Capita GDP*	GDP	Per Capita GDP*	GDP	Per Capita GDP*	GDP	Per Capita GDP*
1985	9,210	5,332	4,805	3,949	3,568	4,035	5,342	3,304
1986	11,658	6,578	6,477	5,183	5,182	5,695	7,773	4,672
1987	16,611	9,135	5,479	4,269	13,455	14,371	6,110	3,569
1988	31,314	16,706	10,376	7,636	25,464	26,290	11,097	6,275
1989	49,837	25,854	16,493	11,803	40,361	40,518	17,980	9,886
1990	42,802	21,592	30,325	21,103	20,517	20,028	43,614	23,317

1991	54,299	26,635	38,715	26,197	25,805	24,495	56,109	29,169
1992	66,708	31,819	49,101	32,307	31,571	28,956	68,240	34,496
1993	83,474	38,716	63,336	40,523	38,686	34,722	85,304	41,932
1994	107,553	48,508	80,537	50,105	50,127	43,748	110,353	52,746

Source: Planning Commission Compiled Data Based on National Accounts of Tanzania 1976-1994 11th Edition August, 1995

Fig. 14: Regional GDPs for Mwanza, Kagera, Mara and Shinyanga Regions at the Current Prices (T.Shs)

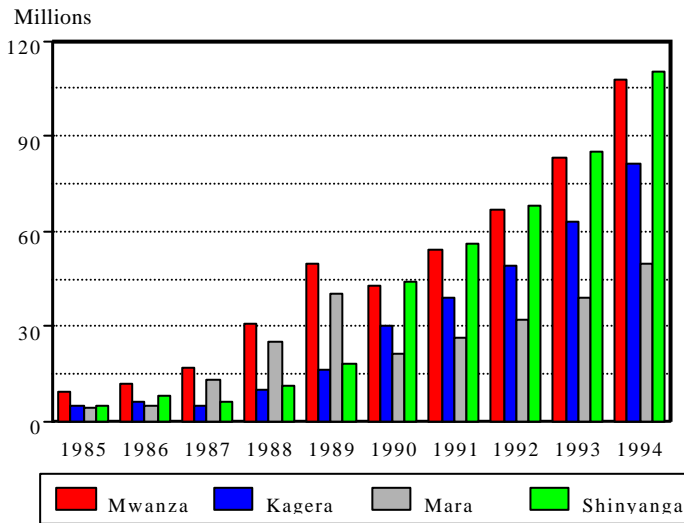
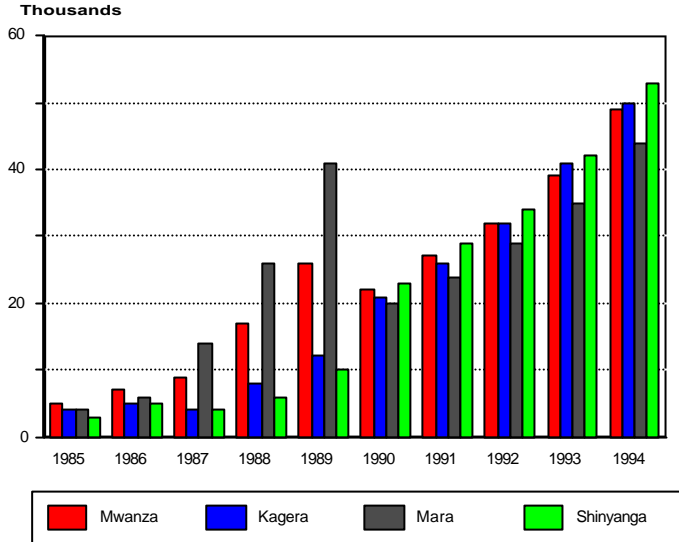


Fig. 15: Regional Per Capita GDP for Mwanza, Kagera, Mara and Shinyanga Regions at the Current Prices (Tshs)



2.3 PRODUCTIVE SECTORS:

These sectors include; Agriculture, Livestock, Forestry, Fishing, Beekeeping, Wildlife, Mining and Industries.

2.3.1 AGRICULTURE:

About 85 percent of Mwanza regional population depends on agriculture for their livelihood. In general, crop production levels per unit area are very low. This low level has been explained by agricultural experts to be due to the perpetual use of out-dated, inferior agricultural implements, soil exhaustion and soil infertility.

In terms of land use, about 4,200 sq. km. of total land or about 21 percent is under small holder cultivation.

Agriculture, the most important economic activity in the region, provides food for the fast growing population, raw materials for the agro-industries, foreign exchange for the country and lastly

employment for the majority of the rural population. The prime objective of the sector in the region is to raise per capita agricultural out-put so as to achieve regional self sufficiency in food and an adequate surplus of saleable crops for export, industry and interregional trade. However, in recent years, Mwanza region has failed in its goal of self sufficiency in food production. Great shortage of food has been experienced and external sources had to be sought to supplement the internally generated food supply.

Given an increasing population dependent on agriculture for livelihood on a constant area of land, the general strategy for meeting food self-sufficiency in the region is intensification of farming practices. In addition, more agricultural production could be achieved by engaging in small irrigation farming. This could be done through rain water harvesting or exploitation of the Lake waters. Attitudes of small farmers and the authorities in the region should change to agricultural irrigation instead of rainfed agriculture which on many occasions has let down farmers.

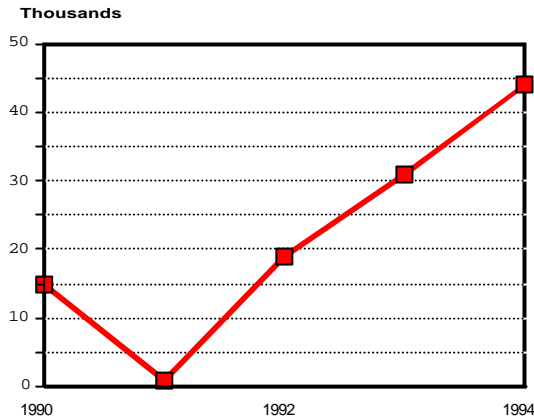
It has been stated earlier that the in adequacy of food internally generated has for some years been supplemented either through movement of food from other regions of surplus production or through food aid, this fact is elaborated by Table II-4.

Table II-4: MAIZE IMPORTS INTO MWANZA REGION 1990-1994 (Metric tons)

YEARS					
Source	1990	1991	1992	1993	1994
Official Food Aid and Reported Private Sector Imports	14,520	1,320	19,231	31,445	43,660

Source: Mwanza Regional agricultural Development office, 1994 report.

Fig. 16: Maize Imports into Mwanza Region (1990 - 1994) in metric tons



There is a general tendency of Food Aid/import increase into the region from year 1992 to 1994. This shows that Mwanza region in recent years has not been able to generate enough food for itself.

Originally the region had estimated during 1996/97 to produce about 1,014,412 tons of food crops but due to severe drought the region realised less than 700,000 tons. Regional food requirement stands at about 815,000 tons. Table II-5 shows a general trend of decreased food production during the years 1990/91 - 1992/93, later the negative trend changed to positive growth during the years 1993/94-1995/96. However, this noted increase still fell below requirements. Dependence on food import is a temporary solution. The permanent solution is for the region to look for strategies that will develop agriculture to a level that will be able to generate adequate or even surplus food. Food aid and food importation from other regions is not something that the region should entertain, given the amount of

resources still lying idle. Food aid normally tends to discourage domestic food production in the long run.

Food and Cash Crop Production:

Major food Crops produced in the region are: Maize, Paddy, millet/sorghum, cassava, sweet potatoes and chickpeas. Cotton is the only cash crop. Production trend of food crops grown in the region for the period of seven years (1989/90 - 1995/96) is shown in Table II-5 and Fig. 17-22.

Table II-5: PRODUCTION OF MAJOR FOOD CROPS IN MWANZA REGION (TONS) 1989/90 - 1995/96

Crop	YEARS							Production percentage of 1995/96
	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	
Maize	174,300	181,480	90,347	126,717	148,162	121,921	154,363	19.9
Pady	116,140	53,200	23,568	52,510	52,207	104,308	126,163	16.2
Cassava	173,420	87,960	79,813	172,553	234,448	284,302	290,250	37.3
Sorghum/Millet	54,540	44,040	33,645	50,458	24,322	33,948	69,413	8.9
Sweet-potatoes	114,430	66,010	53,134	64,194	80,185	83,374	100,198	12.9
Chickpeas	52,140	25,670	22,770	31,240	26,097	43,316	37,224	4.8
Total	684,970	458,360	303,277	497,672	565,421	793,090	777,611	100

Source: Regional Agricultural Development Office, Mwanza 1996

Fig. 17: Major Food Maize Crop in Mwanza Region 1989/90 - 1995/96

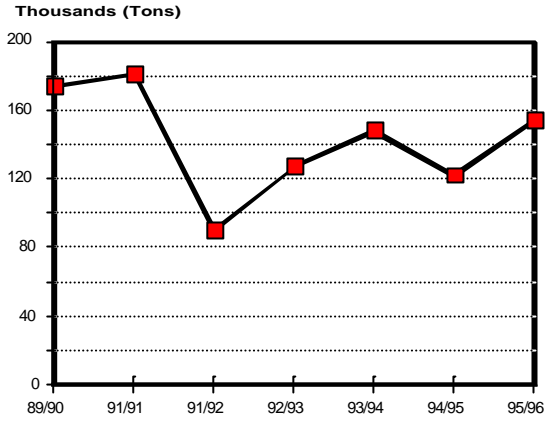


Fig. 18: Major Food Paddy(Rice) Crop in Mwanza Region 1989/90 - 1995/96

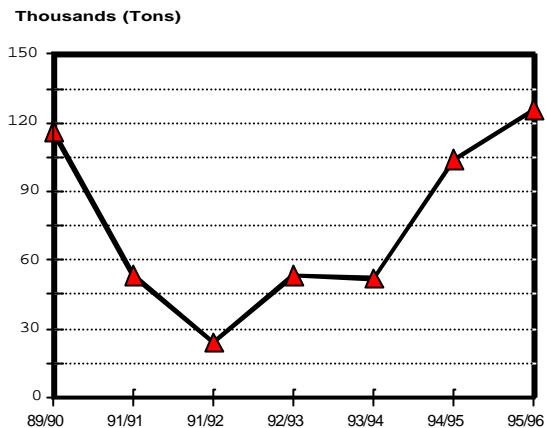


Fig. 19: Major Food Cassava Crop in Mwanza Region 1989/90 - 1995/96

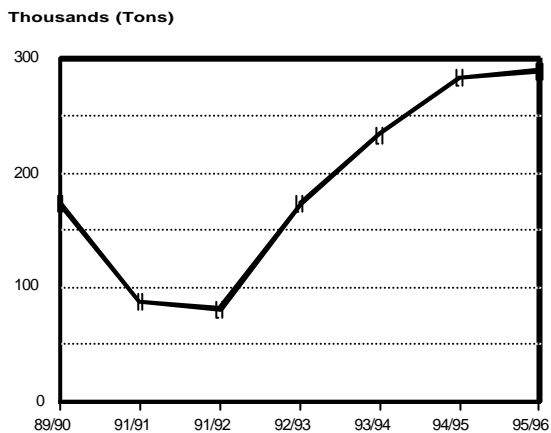


Fig. 20: Major Food Sorghum/Millets Crop in Mwanza Region 1989/90 - 1995/96
Thousands (Tons)

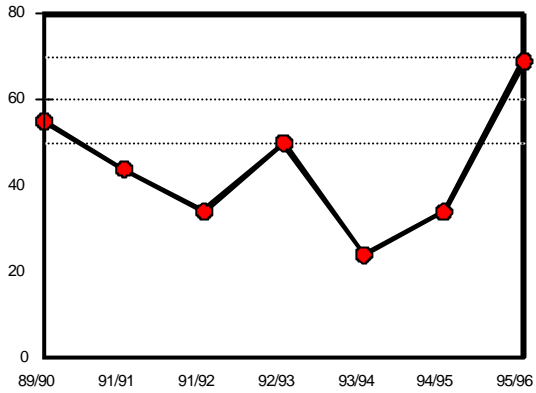


Fig. 21: Major Food Sweet Potatoes Crop in Mwanza Region 1989/90 - 1995/96

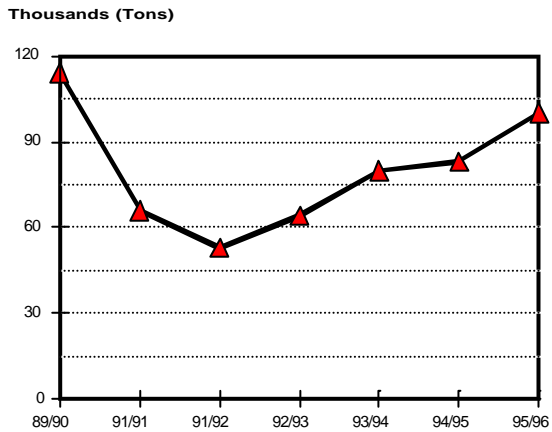
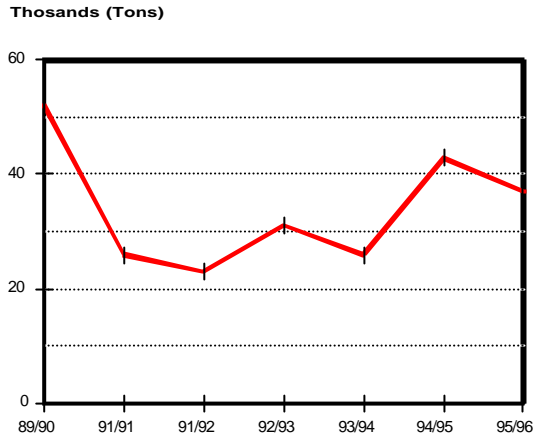


Fig. 22: Major Food Chickpeas Crop in Mwanza Region 1989/90 - 1995/96



Maize:

The years before the 1950s the staple grains of the inhabitants in Mwanza region were bullrush millet and sorghum. After the 1950s and up to the 1960s cassava and maize very largely substituted for these. During the 1960s the mid season drought was less severe throughout the region and this led to an expansion in maize growing at the expense of sorghum and bullrush millet and even cassava.

Since the years of the 1970s the area as a whole has experienced poor rainfall for maize growing. Experience for many years has demonstrated that the only really suitable maize production area in Mwanza region is Geita district and the northern portion of Sengerema district. Rainfall in the rest of the region, though marginally adequate in total, is too variable to support maize growing. Optimum yields of maize have been obtained when planted between mid-December and the end of February.

Sorghum/Millet:

These are drought - resistant grain crops capable of being grown all-over the region. Sorghum and millet are potential grain crops particularly in Magu, Kwimba, southern part of Sengerema and Mwanza districts where rainfall is unreliable. Table II-5 shows the unpopularity of sorghum and millet in recent years. It is only 8.9 percent of the total major food production in the region.

However, since 1993/94 growing season it is observed that there has been an increase in production of these grains. People are beginning to realise the importance of these drought resistant crops as a hedge against famine due to maize failure.

Paddy:

Paddy is grown in many scattered areas and is increasingly becoming an important crop in the region. It is observed in Table II-5 that paddy production in Mwanza region increased by 142% from 52,207 tons in 1993/94 to 126,163 tons in 1995/96 growing season. Production of paddy is dominated by small holders who produce the grain basically for sale. Only a small proportion of the crop is used as food. The local people (Sukuma) regard the habit of eating rice as foreign.

Cassava:

Cassava for many years has been a traditional food crop for a good number of the population of Mwanza region. In recent years its demand as a food crop has declined, less and less people in the region are eating cassava. Tastes have changed. Geita, Sengerema and Ukerewe are the main cassava growing areas. One would expect Magu, Kwimba and Mwanza districts to take the lead in cassava production but because of the existing land competition with other crops many farmers tend to neglect the crop. Families in these later districts establish very small acreages of the crop.

Table II-5 shows a general increase of about 24 percent production of cassava from the year 1993/94 to 1995/96.

Sweet potatoes:

This is grown mainly in Ukerewe islands and to some extent in the western part of the region. In areas where rainfall is not reliable the crop has been a failure. However some cultivation of the crop is done in swampy areas. For this reason in these areas the crop is of minor importance.

Chickpeas:

Traditionally this crop is grown in Kwimba and Missungwi districts. The crop is regarded mainly as a cash crop. A very insignificant proportion of its production is utilised as food. Unfortunately there is no organised market for this produce.

Table II-5 reveals quite a lot of information regarding food crop production trends in the region from the year 1989/90 to 1995/96. Generally there has been no maize production growth since 1989/90. There was negative production growth during the 1991/92 growing season, since then positive growth has been very small and it never reached the record mark of the year 1990/91 which produced 181,480 tons. Paddy declined in 1990/91 and dropped even much lower in 1991/92. The following year the crop started to pick up and kept on doing so, and by 1995/96 the region recorded 126,163 tons of paddy or 9 percent over production figure of 1989/90. 1989/90 was a record year for cassava production at 173,420 tons. However, production declined in 1990/91 and 1991/92. Despite its decline in the two years the crop picked up in 1992/93 when production reached 290,250 tons. This production increase is equivalent to 67 percent over that of 199/90. Sorghum/Millet registered in 1989/90 a record production of 54,540 tons, but declined during the following year and the subsequent years up to 1994/95. Production picked up 1995/96 with a record tonnage of

69,413 tons, an increase of 27 percent over 1989/90. Sweetpotatoes and chickpeas record figures of 1989/90 never got matched by any year subsequently.

Cash Crops:

Cotton has dominated the cash crop land scape in Mwanza region for many years. It is grown in all the districts in the region. The entire crop in the region is grown by peasants on small scale farms averaging three acres per household. The use of modern farming in cotton production is still a problem among many farmers. Over years the region has contributed some 40 percent of the national cotton production. Producer prices have increased over the years . But this seemingly has not stimulated corresponding increases in production. (See Table II-6A). For the last four years producer price has been as follows:-

<u>Year</u>		<u>Price per kg. of Seed Cotton</u>
1993/94	-	60/=
1994/95	-	100/=
1995/96	-	200/=
1996/97	-	170/= Average

Further observation from Table II-6A shows an increase in cotton production experienced during the sixties and reached the peak in 1970/71 when a production record of 192,836 bales was realised. The record season year was then followed by a gradual decline up to a record low of 64,038 bales in 1989/90. Again from 1990/91 production trend changed to positive growth and climaxed in a record figure of 201,295 bales in 1992/93. It has been explained by the regional authorities that the weather during the year 1992/93 was an exceptionally good one. From 1993/94 to date production records don't show any specific pattern. It is mixed.

Table II-6A: COTTON PRODUCTION TREND FROM 1960/61 - 1996/97- MWANZA REGION

Year	Bales	Year	Bales
1960/61	85,049	1990/91	74,972
1961/62	89,933	1991/92	150,965
1962/63	86,101	1992/93	201,295
1963/64	101,156	1993/94	100,505
1964/65	123,625	1994/95	95,771
1965/66	175,779	1995/96	148,283
1966/67	170,703	1996/97	121,808
1967/68	173,173		
1968/69	123,195		
1969/70	173,032		
1970/71	192,836		
1971/72	149,331		
1972/73	185,634		
1973/74	183,794		
1974/75	137,765		
1975/76	78,695		
1976/77	148,264		
1977/78	90,910		
1978/79	117,250		
1979/80	142,000		
1980/81	116,467		
1981/82	88,547		
1982/83	82,193		
1983/84	92,905		
1984/85	108,070		
1985/86	65,114		
1986/87	142,338		
1987/88	165,000		
1988/89	112,743		
1989/90	64,038		

Source: Rolling Plan and Forward Budget 1996/97 - 1998/99, Mwanza Region.

Economically Cotton is the important foreign exchange earner in the region. In 95/96 marketed cotton in the region earned 16.4 billion T. Shillings. The following Table II-6B below emphasizes this point.

Table II-6B: COTTON PURCHASES 1995/96

Crop buyers	Seed cotton kgs	Value (t.shs.)
Nyanza Cooperative Union	75,917,264	15,183,452,800
Kishimba Intewrnational Traders	3,318,450	663,690,000
Milembe Oil Mill Ltd	543,417	108,682,400
Virian Tanzania Ltd.	868,160	173,632,000
Farai Ginneries	1,202,531	240,506,200
Mara Oil Mill	273,218	54,643,600
Total	82,123,040	16,424,607,000

Source: Rolling Plan and forward Budget 1996/97 - 1998/99, Mwanza Region

Given 550 kgs of seed cotton are required for the production of 1 bale of lint. 82,123,040 kgs of seed cotton produced 149,319 bales in 1995/96.

Agricultural Inputs:

The picture with respect to statistics on agricultural inputs used, is not clear. This could be because there is no central authority responsible for the collection of this much scattered data. Agricultural inputs are brought into the region and sold to farmers by a diverse group of individual traders and organisations. However, it is known that the region uses improved cotton

seed of the order of 11,000 tons every year. Other improved seeds commonly in use are maize and sorghum.

The amount of chemical fertilizer used in any one year is insignificant, Reliance is placed on the use of cattle manure from the large regional herd of 1,652,153 stock units.

Irrigation:

Agricultural prospects in Mwanza region have limited scope for raising yields, except through controlled application of water. Although it is possible to increase yields through better soil management, fertilizers and improved varieties, dramatic improvements depend upon irrigation. Rainfall is low and irregular in much of the region for production to be reliable. The long run necessity for irrigated agriculture from the waters of Lake Victoria is clear. By the end of this century the population around the lake will be much larger, and fully developed irrigation systems will be essential in order to sustain food requirement for this large population. The region is already importing food.

The rural population has little experience in irrigation and the correct institutional framework for irrigation development around the lake is not known.

There is notably one Agency (IFAD) which is currently developing irrigation systems through water harvesting. The Agency has started with project areas in Magu district (Missungwi village) where about 400 ha. are now under irrigation and in Missungwi district (Nyamigogo village) where about 250 ha. has also been brought under production through irrigation. The project involves labour intensive methods. The schemes are easy to establish, run and maintain, unlike those of the 1970s which were capital intensive and required sophisticated technology.

These small scale irrigation projects could be the answer to problems of food shortage in the region.

IFAD has an inventory of surveyed and identified suitable areas for small holder irrigation for marginal areas for most of the districts in the region.

2.3.2 LIVESTOCK:

Livestock keeping in Mwanza region is an important economic activity for a large part of the rural population. The rural community in the region relies on livestock to fulfil their social as well as their economic needs.

The region covers only 2.3 percent of the total mainland area but it carries some 12 percent of the national herd (Table II-7).

The table compares Mwanza to other regions and reveals that in Mwanza human and livestock populations show high concentration in relation to available land. Human and livestock population density rank highest in the country with densities of 93.5 and 82.2 respectively.

Table II-7: POPULATION AND LIVESTOCK DISTRIBUTION AND DENSITY BY REGIONS 1993/94

Region	Land Area (Sq.kms)	Population (1)	Population Density per sq.km.	Rank	Livestock(2) (L.S.U) Density	Livestock Density	Livestock Density Rank
Shinyanga	50,760	1,763,960	34.9	8	1,866,027	36.8	4
Mwanza	20,095	1,878,271	93.5	1	1,652,153	82.2	1
Dodoma	41,311	1,235,277	30.0	9	1,600,275	38.7	3
Arusha	82,098	1,352,225	16.5	14	1,399,189	17.0	8
Kilimanjaro	13,309	1,108,699	83.7	2	485,540	36.5	5
Tanga	26,677	1,280,262	48.1	5	1,087,459	40.8	2
Morogoro	70,799	1,222,737	17.0	13	326,632	4.6	14
Pwani/DSM	33,800	1,998,865	59.1	3	51,312	1.5	16
Lindi	66,040	642,364	9.8	19	1,245	0.02	19
Mtwara	16,710	887,583	53.2	4	58,080	3.5	15
Ruvuma	66,477	783,327	12.0	17	52,341	0.8	18
Iringa	56,850	1,193,074	21.3	12	449,749	7.9	12
Mbeya	60,350	1,476,261	24.0	10	911,069	15.1	9
Singida	49,341	791,814	16.0	15	1,382,333	28.0	7
Tabora	76,151	1,036,293	14.0	16	547,286	7.2	13
Rukwa	68,635	704,050	10.1	18	548,111	8.0	11
Kigoma	37,040	853,263	23.1	11	32,097	0.9	17
Mara	21,760	952,616	43.7	7	746,966	34.3	6
kagera	28,456	1,313,639	46.6	6	419,730	14.8	10
Total	885,987	23,174,443	26.1		13,617,595	15.4	

Source: (1) 1988 Population Census

(2) National Sample Census of Agriculture 1993/94 Tanzania Mainland Report
Vol.II Ministry of Agriculture and Cooperative Development.

Table II-8: DISTRIBUTION OF MAJOR LIVESTOCK BY TYPE AND DISTRICT, MWANZA REGION 1984

District	Cattle	Donkeys	Goats	Sheep
Magu	294,574	372	96,519	80,125
Kwimba	506,874	4,416	166,445	120,589
Geita	272,248	896	144,725	32,251
Sengerema	186,895	11	103,584	21,657
Ukerewe	52,884	1	31,821	203
Mwanza	27,573	14	18,224	4,002
Total	1,341,048	5,710	561,318	258,827

Source: 1984 Livestock Census

Fig. 23: Livestock (Cattle) Population by District, Mwanza Region, 1984 Census

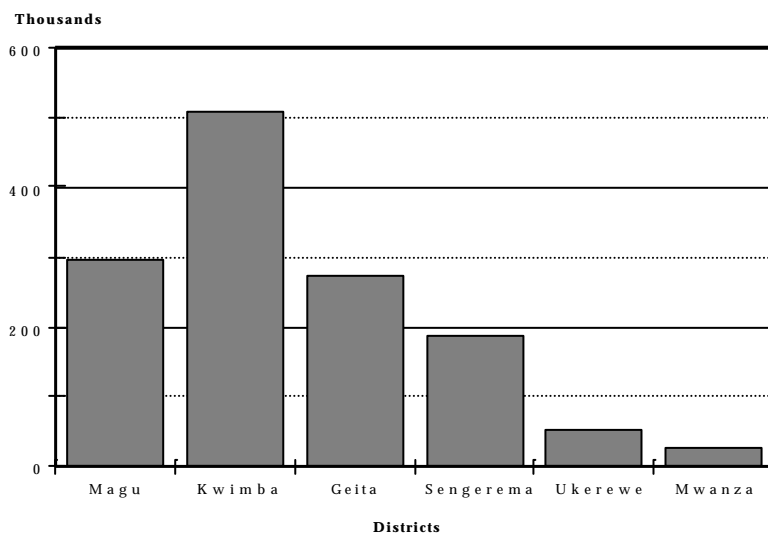


Fig. 24: Livestock (Donkeys) Population by District, Mwanza Region, 1984 Census

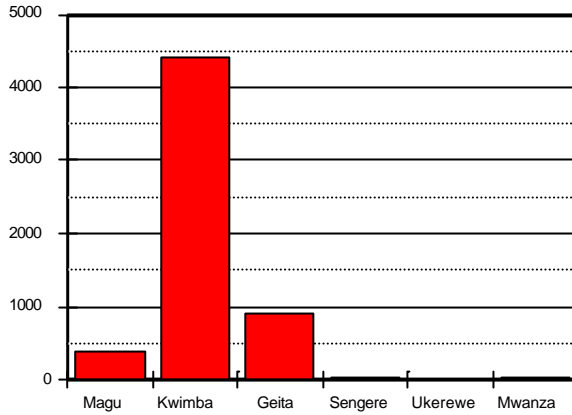


Fig. 25 Livestock (Goats) Population by District, Mwanza Region, 1984

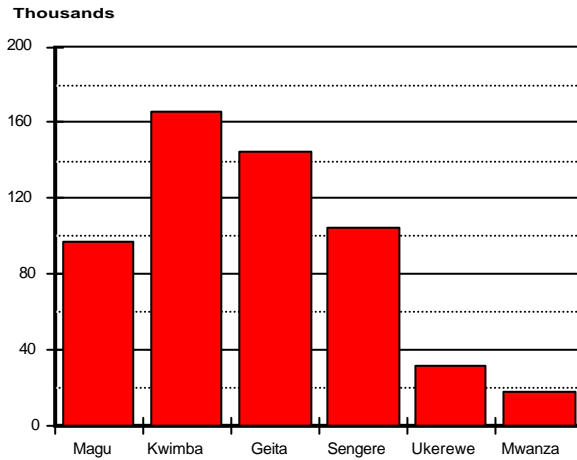
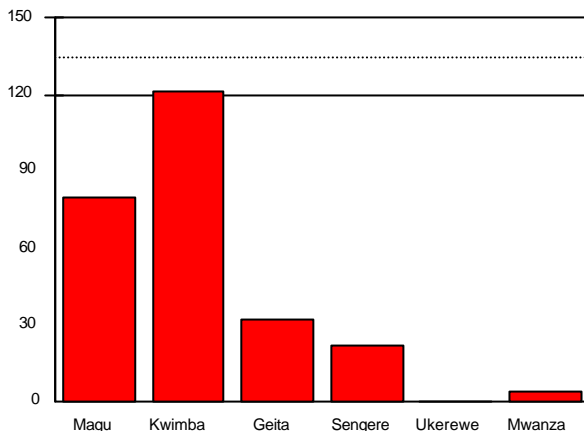


Fig. 26: Livestock (Sheep) Population by District, Mwanza Region, 1984
Thousands



Livestock population in the region has added pressure on the land and many areas to day are experiencing overgrazing resulting in environmental problems like soil erosion.

Based on 1984 Livestock Census Mwanza region had 1,341,048 Cattle, 5,710 donkeys, 561,318 goats and 258,827 sheep (Table II-8 refers.)

Kwimba district took the lead in terms of the number of livestock followed by Magu district. By June 1995 the region had an estimated number of 1,621,918 cattle, 678,767 goats, 310,328 sheep and 6,489 donkeys (Refer: Rolling Plan and Forward Budget 1996/97-1998/99 Mwanza region).

Generally speaking the potential of the livestock sector is far from being fully realised. Livestock sector contribution to the Regional GDP 1994/95 is highlighted by data indicated below:-

Livestock	Number (Internally Marketed)	Value in TShs.
Cattle	17,258	812,475,790
goats	2,374	42,496,540
Sheep	571	2,746,400
Cattle (Exported)	91	4,246,236
Sub-Total		861,964,966
Hides and Skins	361,000	230,496,840
Grand Total		1,092,461,806

Source: Rolling Plan and forward Budget 1996/97 -1998/99 Mwanza Region

Fig. 27: Livestock number (Internally Marketed) in Mwanza Region, 1994/95

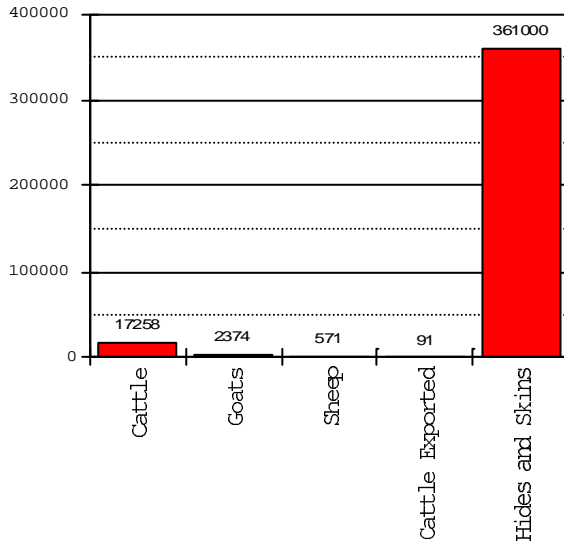
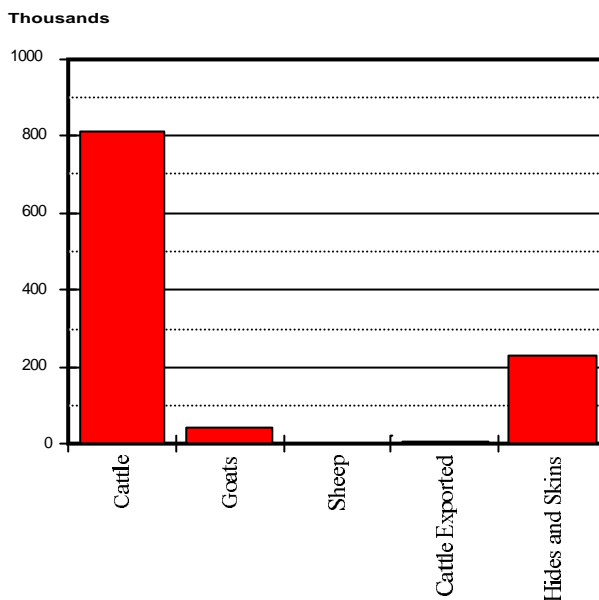


Fig. 28: Contribution of livestock in Tshs., Mwanza Region GDP, 1994/95



It is clearly observed that this sector contributed barely 1 percent to the regional GDP. This contribution is very insignificant compared to food and cash crops, fishing and industrial production.

The dairy industry is far from being developed in the region. It is only recently that some efforts have been made to introduce dairy cattle farming in the region. The World Food Programme and the Lutheran Heifer Project are running dairy projects in Kwimba, Ukerewe and Sengerema. These two programmes account for much of the number of dairy cattle in these districts.

In other districts personal initiatives are responsible for the number of dairy cattle. The Number of owners and dairy cattle is shown in (Table II-9).

Dips and livestock health centres being the most important service infrastructures are not adequately provided in the region to meet the demand.

It is the national target that each dip should serve 5,000 L.S.U., this means therefore, that with the total regional livestock Units of 1,652,153 the optimal dip requirement would be 330 dips. The number of dips in the region in 1996 was 168 only and out of this, only 48 dips were operating (Table II-10).

In general there is one Livestock Health Centre per administrative division, this is not adequate considering the distance needed to get to the service. Added to this problems, there is generally a big shortage of drugs and vaccines availability.

Table II-9: DISTRIBUTION OF DAIRY CATTLE BY DISTRICT - MWANZA REGION, 1990 AND 1996

District	Number of Owners		Number of Dairy Cattle	
	1990	1996	1990	1996
Magu	10	20	21	198
Kwimba	15	180	97	394
Geita	10	10	12	61
Sengerema	16	52	60	145
Ukerewe	33	155	74	333
Mwanza	160	520	530	13,090
Total	244	937	794	14,221

Source: R.A.L.D.O Mwanza Annual Report, 1996

Table II-10: AVAILABLE LIVESTOCK INFRASTRUCTURE BY DISTRICT, MWANZA REGION, 1996

District	Dips		Abattoirs	Crushe s	Health Centre s (LDC)	Hides and Skin Sheds
	1995/96 in use	1995/96 not used				
Magu	6	20	8	18	6	16
Kwimba	25	32	9	16	13	22
Misungwi						
Geita	3	28	8	4	7	18
Sengerema	5	25	16	4	4	10
Ukerewe	8	8	19	5	3	9
Mwanza	1	7	3	6	2	4
Total	48	120	63	53	35	79

Source: R.A.L.D.O. Mwanza Annual Report 1996

In general services to livestock sector must be improved. The number of livestock marketed annually through official channels has relatively been low. The policy of annual reduction of livestock by 10 percent through sales has badly failed (Table II-11)

In the table the number of marketed cattle through official channels 1990-1996 is reflected values are not stated. This is probably due to difficulties in collecting the sales statistics. One weakness in the marketing of livestock is the presence of middlemen. These unofficial livestock buyers offer relatively

low prices. The alternative is for livestock owners to trek over long distances in order to reach official sale points.

Table II-11: REPORTED NUMBER OF CATTLE MARKETED BY DISTRICT IN MWANZA REGION 1990-1996

District	1990	1991	1992	1993	1994	1995	1996
Magu	11,305	13,016	16,240	20,017	11,737	6,931	1,822
Kwimba	6,114	5,739	7,759	9,260	11,161	5,490	4,595
Misungwi							
Geita	10,639	4,154	2,081	2,056	1,332	1,079	1,620
Sengerema	1,855	2,226	1,710	2,542	1,674	3,274	7,437
Ukerewe	1,286	686	1,386	1,680	1,270	685	1,435
Mwanza	7,107	1,633	1,907	2,118	2,774	2,358	2,491
Total	38,306	27,454	31,083	37,673	29,948	19,817	19,400

Source: R.A.L.D.O. Mwanza Annual Report 1990-1996

Fig. 29: Number of cattle marketed Magu District, 1990 - 96

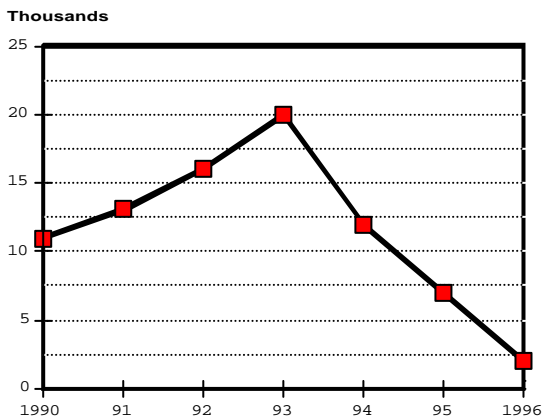


Fig. 30: Number of cattle marketed Kwimba/Misungwi Districts, 1990 - 96

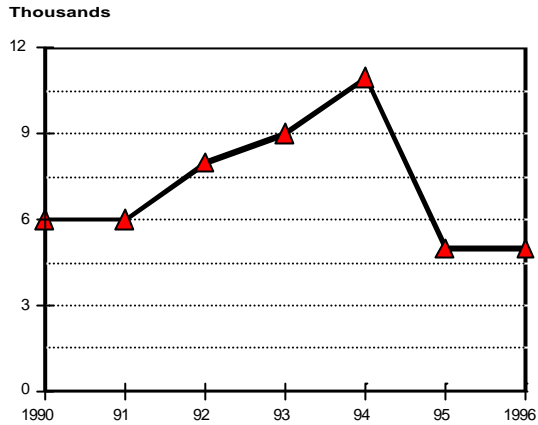


Fig. 31: Number of cattle marketed Geita District, 1990 - 96

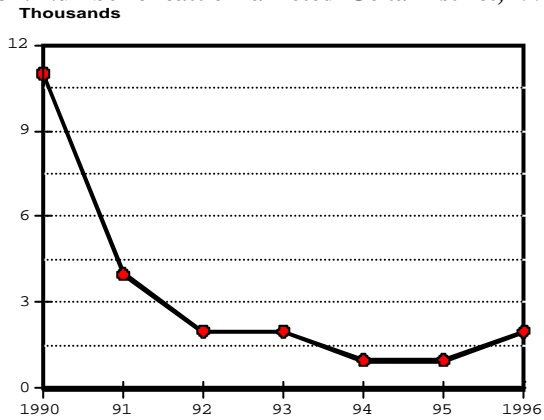


Fig. 32: Number of cattle marketed Sengerema District, 1990 - 96

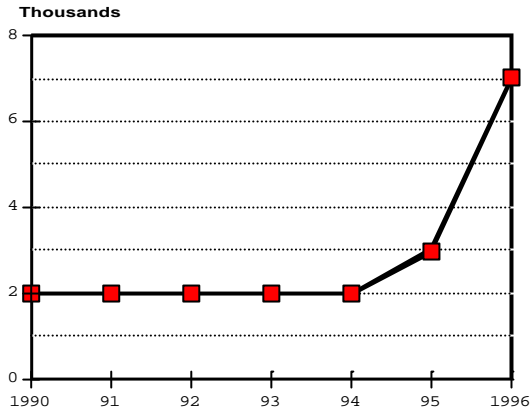


Fig. 33: Number of cattle marketed Ukerewe District, 1990 - 96

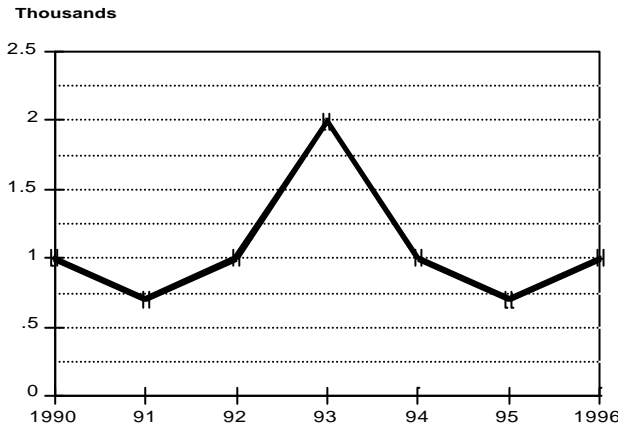
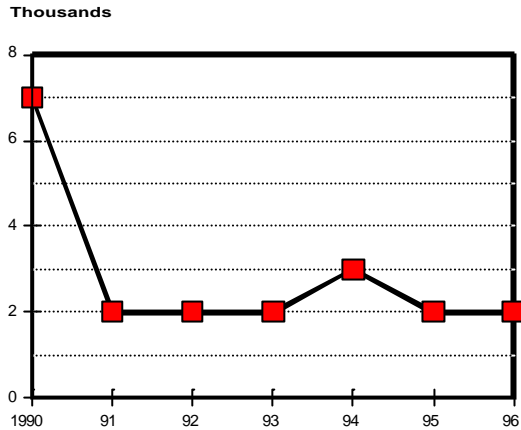


Fig. 34: Number of cattle marketed Mwanza District, 1990 - 96



Figures for hides and skins are highlighted in Table II-12. However, the table may not reflect the true picture on actual quantity of these products in the region. Many hides and skins are sold on the blackmarket

Table II-12: HIDES AND SKINS MARKETED BY DISTRICT MWANZA REGION, 1995.

District	Cattle Hides	Goat skins	Sheep Skins
Magu	2,453	700	24
Kwimba	1,198	226	90
Misungwi			
Geita	1,605	374	-
Sengerema	5,009	474	2
Ukerewe	1,462	16	-
mwanza	23,610	3,866	903
Total	35,337	5,656	1,017

Source: R.A.L.D.O Annual Report 1995

Fig. 35: Cattle hides marketed in Mwanza Region by District, 1995

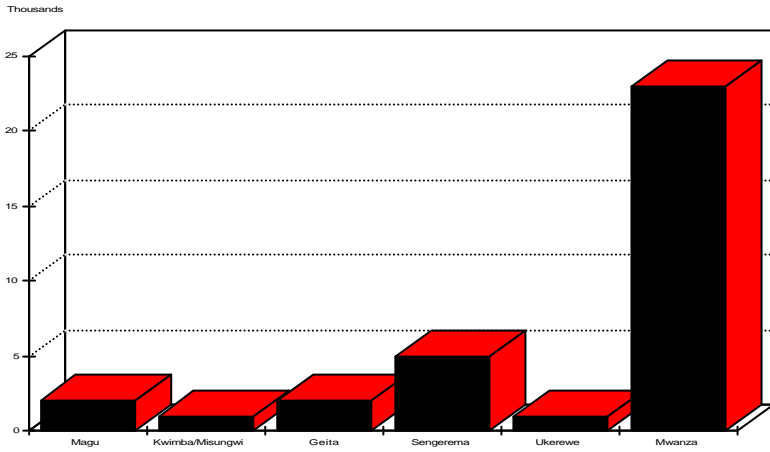


Fig. 36: Goats skins marketed in Mwanza Region by District, 1995

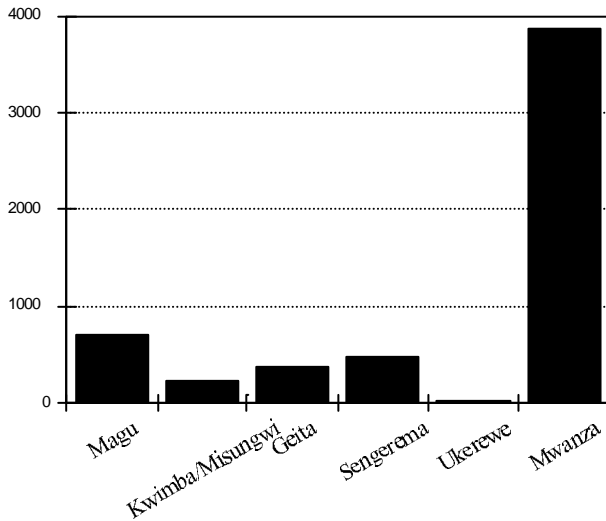
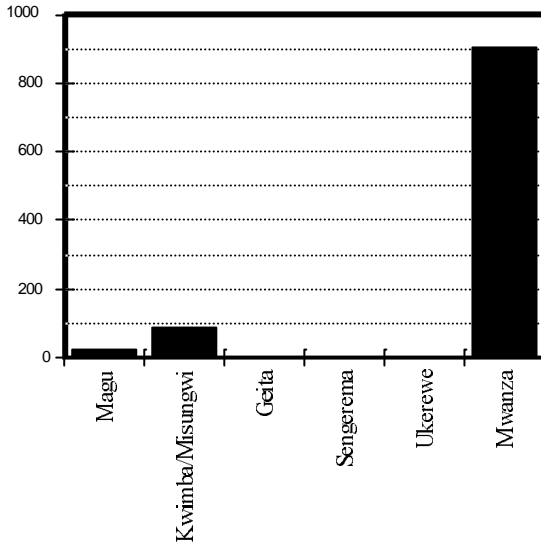


Fig. 37: Sheep skins marketed in Mwanza Region by District, 1995



Traditionally in Ukerewe district goats and sheep meat is not preferred.

With over 1.6 million livestock units in the region, the livestock sector must provide one of the greatest potentials for development. To achieve this objective regional and national programmes must be designed to increase the level of commercialisation of livestock production while bringing about a reasonable balance between stock numbers and available land resources; and a close intergration between animal and crop husbandry.

In high stock-density areas a reduction in stock numbers must be brought about to avoid destruction of the soil and vegetation resources and to allow an improvement in animal quality through increased availability of grazing.

In view of the complex social relations involved in livestock keeping in the regions, several recommendations are suggested that may help to achieve a

reasonable level of livestock reduction particularly in high-stock density areas:-

- (a) Improvement of the livestock marketing system and encouragement of foreign buyers. By this way cattle owners could realise attractive prices for their livestock.
- (b) Provision of an Act that could demarcate village land area and allow land ownership allocated to each household. This will prevent trespassing of livestock on unauthorised grazing areas.
- (c) Increase the number of market venues from the present number which is about one to every division. This should be brought to the level of a ward in order to reduce the long distances cattle owners sometimes walk to reach livestock market places.
- (d) Establish legal livestock trade with neighbouring countries such as Uganda and Kenya. Necessary livestock infrastructures for such market must be established in strategic centres such as Mwanza, Bunda and Tarime.
- (e) Reviving the idea of establishing and meat packing plant in Shinyanga. Meat Products from the plant could gain markets locally and in the Great Lakes region countries where meat is a scarce commodity. Trade in meat processed product in these countries would definitely stabilise livestock prices to a level attractive to the farmer which in turn would motivate him to sell a greater proportion of his herd.

2.3.3 FORESTRY:

It is clearly evident that Mwanza region has lost most of its tree cover through extensive clearing of forest for agricultural production, eradication of tsetse flies to pave way for livestock grazing, and the cutting of trees for timber, poles and firewood without replenishment.

Consequently the destruction of these forests has left the regions land area with less than 10 percent forest cover. The existing natural forests at present are in Geita and Sengerema districts (Table II-13).

The low forest cover in the region has led to acute shortage of forest products and environmental degradation particularly soil erosion. Forest destruction in some water catchment areas has resulted in the drying up of wells during the dry season. A few examples to confirm this fact are: Nyang'wale and Msalala in Geita, Busega and Kivukoni in Magu, Mwamashimba in Kwimba and Nyanchenche in Sengerema districts.

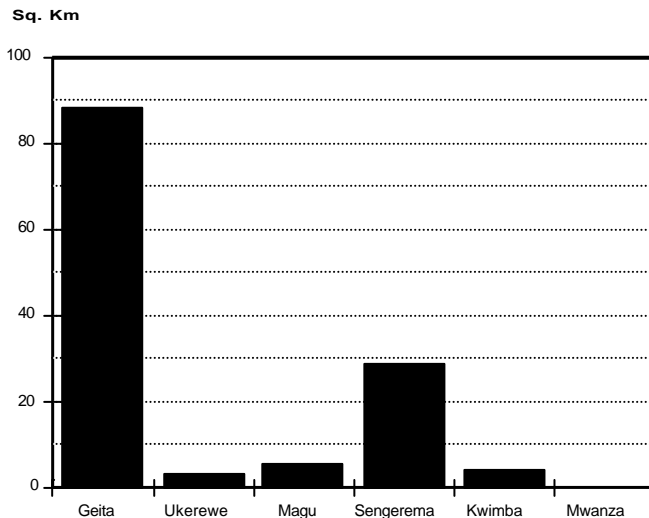
Table II-13 shows areas covered by forests against the total district area. It is evident from the cited table that Mwanza Region has only 129.8 sq. km. area under forests. This very small area under forest may soon go as more people scramble for fuelwood, charcoal and other requirements. Efforts by the regional authorities to prevent people from carrying out further destruction may prove to be useless as there is no provision for alternative sources of domestic energy. Further observation from Table II-13 shows that of all the forest covers in the region, about 68 percent are in Geita district, Sengerema district accounts for 22 percent. The remaining districts have only small portions.

Table II-13: COMPARISON OF AREAS COVERED BY FORESTS AGAINST THE TOTAL AREA OF THE DISTRICT

District	District Area (sq.km.)	Forest Area (sq.km.)	Percent of Total Forest Area	percent Coverage of Total District Land Area
Geita	6,775	88.5	68.1	1.3
Ukerewe	640	3.0	2.3	0.5
Magu	3,070	5.4	4.2	0.2
Sengerema	3,335	28.8	22.2	0.9
Kwimba	5,850	4.1	3.2	0.07
Mwanza	425	-	-	-
Total	20,095	129.8	100	0.68

Source: Five Year Forestry Development Plan 1996/97 - 2000/2001 - Mwanza Region

Fig. 38: Area covered by forests by District, Mwanza Region



Fuelwood (firewood and charcoal) account for more than 97% of the total energy used in Mwanza region for domestic purposes. There is no hope for other alternative energy source being found in the near future.

The supply of this form of energy is getting scarce particularly in Irugwa Island of Ukerewe where people are using grass for cooking. While in some parts of Magu namely Kivukoni, Busega, Itumbili and Sanjo divisions families use farm residues and animal dung as sources of domestic energy. About 50% of the charcoal and firewood used in Mwanza Municipality come from Tabora and Kagera regions.

It is estimated that about 171,000 tons of fuelwood is annually harvested for domestic energy purposes in Mwanza region.

Mwanza regional efforts to prevent or at least reduce the speed of forest depletion has managed to declare and gazetted some natural forests as reserves, Buhindi and Rubya as Central government plantations. These reserves and plantation total up to 129,820 ha. Table II-14 and Fig. 39 highlights the situation.

This is an encouraging move, but moderate to severe encroachment into these reserves has been experienced and the consequences are severe, some 10,000 ha. have been affected.

Table II-14: FOREST RESERVES IN MWANZA REGION AS BY 1997

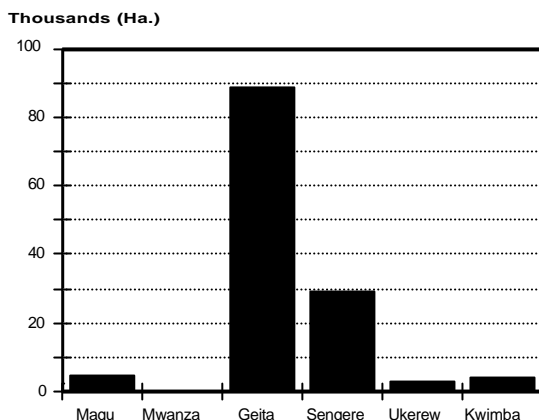
District	Name of Reserve	Owner	Area (Ha.)	Illegal harvesting level	Enroached area (Ha)
Magu**	Sayaka	Local Govt.	5,421	Severe	120
Mwanza	Nil	Nil	0	Nil	NIL
Geita	Geita	C. Govt.	47,700	Moderate	0
	Mienze	Local Govt.	9,100	Small	0
	Ruamugasa	C. Govt.	15,600	Severe	0
	Ruande	Local Govt.	15,500	Severe	7,750
	Sinde hill	Local Govt.	200	Severe	0
	Usindakwe	C. Govt.	400	Severe	320
	Sub-total			88,500	
Sengerema	Buhindi	C. Govt.	12,690	Small	0
	Kome/Chigara	C. Govt.	1,800	Small	3
	Kome/Ito	C. Govt.	100	Small	0
	Kome/Ikuru	C. Govt.	200	Small	0
	Maisome	C. Govt.	12,190	Small	0
	Sima	Local Govt.	1,820	Small	2
	Sub-total			28,800	
Ukerewe	itira	Local Govt.	107	Severe	21
	Kabingo	Local Govt.	250	Severe	25
	Mkigagi	Local Govt.	116	Severe	0
	Negoma	local Govt.	697	Severe	0
	Rubya	C. Govt.	1.820	Small	0

	Sub-total		2,990		46
Kwimba	Bujingwa	Local Govt.	25	Severe	25
	Ibindo	Local Govt.	24	Severe	24
	Ilongafipa	Local Govt.	1,336	Severe	668
	Kakora	Local Govt.	4	Severe	4
	Malenga	Local Govt.	22	Severe	22
	Mamani	Local Govt.	758	Severe	493
	Mhalo	Local Govt.	915	Severe	686
	Mwamakelemo	Local Govt.	50	Severe	30
	Mwamayombo	Local Govt.	5	Severe	5
	Sisu	Local Govt.	927	Severe	464
	Talaga	Local Govt.	43	Severe	43
	Sub-total		4,109		2,464
	GRAND TOTAL		129,820		10,705

** Sayaka Woodlands in Magu District were proposed to be gazetted as Local Government forest reserve in 1984 but it is not yet gazetted.

Source: Forest resources Management Project Report 1996 Mwanza Region.

Fig. 39: Forest Reserves in Mwanza Region by District as by 1997



Woodlots are being established to complement the efforts of setting aside forest areas as forest reserves to conserve the environment. The woodlot establishment starts with seed raising in nurseries. The raising of tree seedlings for distribution has been going on for several decades, but quantities have always been negligible given the huge demand for afforestation. (See Table II-15). The lack of awareness of the importance of afforestation might be the problem behind the low quantities of seedlings raised. Principal actors in woodlot establishment and management are village governments, institutions such as schools and even individuals. The main use of woodlots is firewood for domestic uses and in some areas for the conservation of the degraded areas.

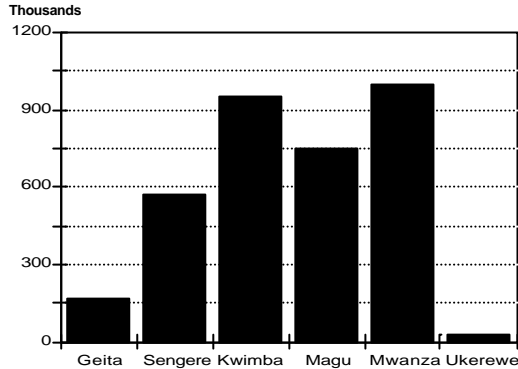
Table II-15: FOREST PLANTATION DEVELOPMENT IN MWANZA REGION (Seedlings)

Year	Geita	Sengerema	Kwimba	Magu	Mwanza	Ukerewe	Total
1994/95	-	159,890	-	128,166	324,077	-	612,133
1995/96	-	-	793,698	359,827	167,149	-	1,320,674
1996/97	169,337	408,357	156,929	266,316	512,178	24,583	1,537,700

Total	169,337	568,247	950,627	754,309	1,003,404	24,583	3,470,507
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Source: Regional Forest Officer, Annual Report 1996 - 1997

Fig. 40: Total forest plantaion(Seedlings) development in Mwanza Region, 1994/95 - 1996/97



Observation from Table II-16 reveals that the government earned revenue totaling Tshs.232,838,422 in the three years (1994/95 to 1996/97) from sale of soft timber mostly from Rubya and Buhindi forest plantations. These two plantations have had impact on Mwanza regions demand for house construction timber. Soft timber requirements will continue to expand in proportion to regional population increase and economic improvement. It makes sense economically for this demand to be met from within the region. If no plans are made for the expansion of existing plantations, sooner or later these plantations will get depleted. In order to avoid this unwanted situation the region is better advised to embark on the establishment of new plantations.

Geita and Sengerema districts are possible areas for this expansion because of the existence of surplus land and the weather favourable for the species normally grown.

Table II-16: TIMBER SALES FROM RESERVES/PLANTATIONS 1994/95-1996/97

Year	1994/95	1995/96	1996/97	Source
TShs.	1,676,039.60	76,164,440.00	75,222,275.00	Rubya Plantation
TShs.	-	33,616,392.00	46,156,275.00	Buhindi Plantation
Total	1,679,039.60	109,780,832.00	121,378,550.00	232,838,421.60

Source: Regional Natural Resources Officer Annual Report 1994/95-1996/97

From what has been reviewed in this sector one can draw the general recommendation that the forestry conservation and afforestation should be concentrated in Geita and Sengerema districts to meet future demand for fuel and for the construction industry. Elsewhere in the region the lack of fuelwood could be rectified by the establishment of village fuelwood woodlots in line with the sound land conservation plan of using quick-growing species.

Steps need be taken at the regional and national level by the development of sound programmes geared towards solving problems earlier discussed. Some initial programmes have already started appearing on the scene, notably the “Forest Resources Management Project” (FRMP).

2.3.4 FISHERIES :

One major occupation of the inhabitants along the shores of Lake Victoria in Mwanza region is fishing. Lake Victoria provides freshwater fishing potential for the region. It has been referred earlier that the water area for Mwanza region is 15,092 sq km. Representing 43 percent of the total area of the region. The fishery resources of the Lake are exploited by an estimated 13,000 artisanal

fishermen, using about 2,300 planked boats and dug-out canoes (Table II-18). Principal fish caught are the Nile perch (Lates niloticus) and Daga (Rastrineobola argenti). Other important species include Tilapia, African lungfish (Protopterus aethiopicus) and cat fish (Clarias gariepinus).

It is only in recent years that the great potential of the Lake is being fully realised through the establishment of organised fish marketing and processing. The Lake is abundantly supplied with fish both in quantity and types. Annual fish harvests of 200,000 tons can be achieved without endangering the fish population. Recorded figures for 1992 was 93,327 and recorded weight in 1993 was over 129,000 tons, but declined to 74,133.8 tons in 1994 and 75,086.7 tons in 1995 and to 80,083 in 1996. Table II-17 highlights this fact and shows the value of this product:-

Table II-17

Years	1992	1993	1994	1995	1996
Tons	93,327	129,881	74,133.8	75,096.7	80,083
Value TShs.(‘000)	4,564,767	14,011,839	9,102,157	8,299,493.8	22,665,806.8

Source: Regional Fisheries Officer Mwanza 1996 Report.

Not all the fish caught was consumed locally, the surplus was exported to countries like Zaire, Ruanda and Burundi. It is only in recent years that fish fillet is being process in the regio and exported to European Union countries and the Far East countries such as Japan and Australia. The fishery industry is one of the major contributors to the region’s GDP and it is increasing its share. Total fish weight of 80,083 tons valued at Tshs.22,665,806,800 was recorded and out of this a total of 9,544.6 tons of processed fish fillet valued at Tshs.5,114,402,292 was exported. This exported tonnage was coutributed by the following fish fillet processing companies:-

1. Vic Fish ltd.
2. Tanzania fish Processors Ltd.
3. Nile Perch Fisheries Ltd.
4. Tan Perch Ltd.
5. Omea Fish Ltd.
6. Fish meat (T) Corp. Ltd.
7. Mwanza Fishing Industries Ltd.
8. Victoria Fisheries Ltd.

The following table II-18 give comparisons of Lake Zone regions on fishing activities for 1993 and 1994.

Table II-18: FISH INDUSTRY STATISTICS BETWEEN THE THREE NEIGHBOURING LAKE REGIONS OF TANZANIA.

Fishery Data	Mwanza		Mara		Kagera	
	1993	1994	1993	1994	1993	1994
Number of Fishermen	13,172	13,172	5,192	5,192	1,700	1,700
Number of Fishing Vessels	2,332	2,332	1,056	1,056	797	797
Weight of fish (Tons)	129,880.7	74,133.8	25,747	23,505.7	20,636.4	20,993.6
Value of Fish (Tshs.'000)	14,011.839	9,102,157	2,989,561	2,171,660	2,330.178	3,607,650

Source: Annual Statistics Report 1994 Ministry of Natural Resources and Tourism

Fig. 41: Number of Fishermen in Mwanza, Mara na Kagera regions, 1993 - 1994

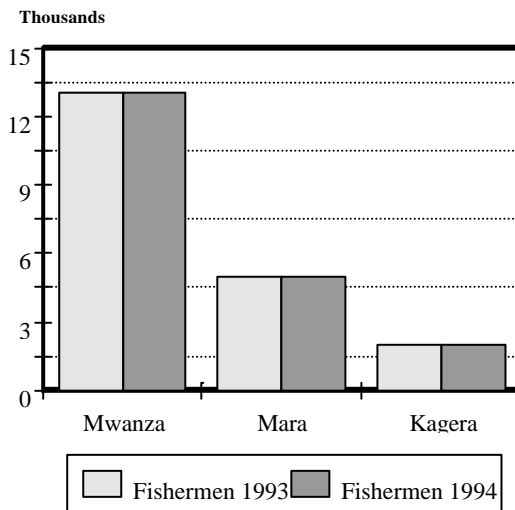


Fig. 42: Weight of fish (Tons) harvested in Mwanza, Mara and Kagera regions 1993 - 1994

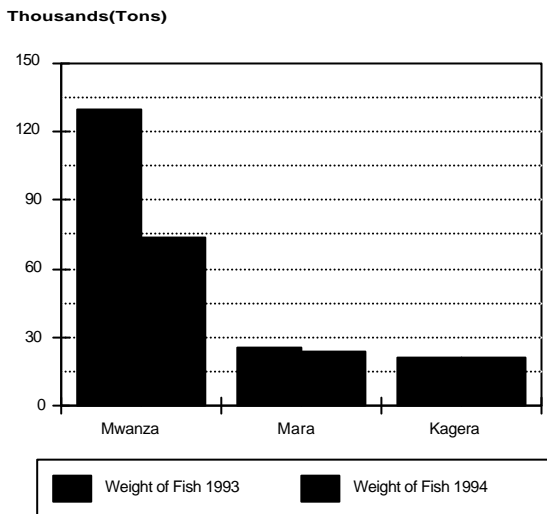
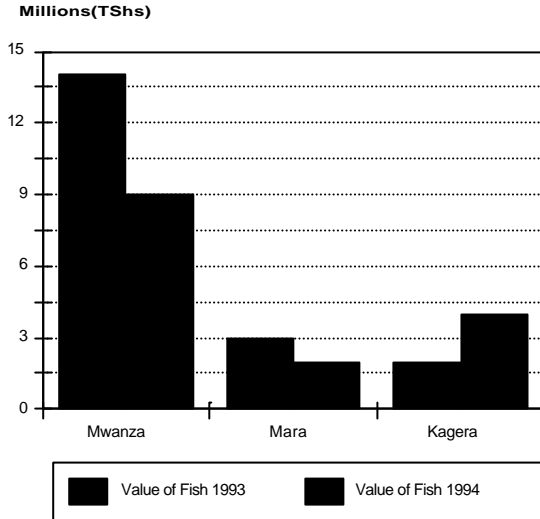


Fig. 43: Value of Fish (TShs.) collected in Mwanza, Mara and Kagera regions, 1993 and 1994



According to Table II-18 Mwanza region contributes more in the exploitation of the lake than its neighbouring Lake Zone regions. In terms of tonnage of fish caught and registered fishing vessels, Mwanza region recorded in 1994 62.5 percent of all the fish netted and recorded in the Lake Zone. Mara and Kagera recorded 19.8 and 17.7 percent respectively. Sixty one percent of the total value of fish caught the Lake zone in 1994 came from Mwanza region. Mara and Kagera contributed 14.6 and 24.2 percent respectively. It is observed further that Mwanza region took the lead in the number of fishermen and in number of fishing vessels when compared with Mara and Kagera regions.

From this sectoral review one may appreciate the wealth that lies in the waters of the lake. The little that is being realised should give encouragement to the region to give development priority to the fishing industry particularly in Ukerewe and areas along the lake shore where land resources are limited. The development should be aimed at rational exploitation within the bounds of conservational demands. It is emphasised too that the Fresh Water

Fishing Act of 1994 which protects the lake and its biotypes should be enforced.

2.3.5 BEEKEEPING:

Beekeeping is another economic activity that could provide the peasant farmer with financial gain. Over 75 percent of the beekeeping activities in the region are carried out in Geita district, followed by Kwimba and Sengerema. In the remaining districts the activity is very insignificant. According to the available data of 1993/94, there are about 31,209 beehives, out of which only 64 are modern. Table II-19 shows the trend in terms of beehives recorded for the period 1985/86 to 1993/94. Generally there has been an increase in the number both in Geita and Kwimba districts. An increase in the number of beehives in these two districts reflects people's realisation of the importance of bee-keeping as alternative source of income. Beekeeping as an alternative economic activity should receive deliberate attention in order to ensure that more and more people shift from the use of traditional bee-hives to modern beehives.

Table II-20 shows the trend of incomes generated from the sale of honey and wax from 1985/86 to 1993/94. The year 1992/93 recorded the highest income.

**Table II-19: NUMBER OF BEEHIVES BY DISTRICTS 1985/86 - 1993/94
MWANZA REGION**

Year	Geita		Sengerema		Kwimba		Magu		mwanza		Ukerewe		Total	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2
1985/86	45	15,504	40	764	38	3,290	7	-	-	-	46	-	176	19,558
1986/87	54	18,800	40	1,010	62	3,351	7	-	-	-	46	-	209	23,161
1987/88	53	19,082	35	1,515	51	3,425	6	14	-	-	64	-	209	24,036

1988/89	30	24,400	37	1,515	58	2,317	6	14	-	-	64	-	195	28,246
1989/90	23	25,090	20	1,923	56	2,403	6	19	-	-	52	-	157	29,435
1990/91	16	22,485	22	2,161	44	2,929	6	19	-	-	48	-	136	27,594
1991/92	13	22,800	21	2,546	13	4,033	5	26	6	-	32	-	90	29,105
1992/93	8	25,000	10	2,336	-	4,123	14	39	6	-	18	-	56	31,485
1993/94	15	25,028	10	1,641	-	4,501	15	39	6	-	18	-	64	31,209

Key: 1 = Modern Beehives
2 = Traditional Beehives

Source: Compiled Data: Regional Natural Resources Office, Mwanza 1997

Table II-20: BEEKEEPING PRODUCTS AND VALUE

Year	Modern Beehives	Traditional Beehives	Bee-Wax		Honey	
			Kgs.	Tshs.	Kgs.	Tshs.
1985/86	176	19,558	335	17,750	6,171	246,860
1986/87	209	23,161	181.5	27,150	12,203	915,225
1987/88	209	24,036	20.5	3,075	14,029	10,515
1988/89	195	28,246	2,277	600,900	37,137	1,221,500
1989/90	157	29,435	3,049	129,600	49,393	1,988,800
1990/91	136	27,594	36	9,000	37,328	5,965,153
1991/92	90	29,105	-	-	32,544	1,420,500
1992/93	56	31,485	33	11,500	65,420	28,444,600
1993/94	64	31,209	-	-	39,570	18,466,700

Source: Regional Natural Resources Office, Mwanza 1997

Fig. 44: Beeswax products(Kgs), Mwanza region for 1985/86 - 1993/94

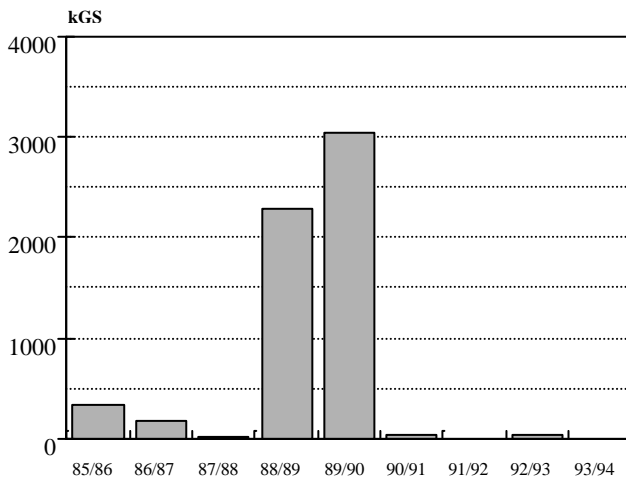


Fig. 45: Value in T.Shs. from Beeswax, Mwanza region for 1985/86 - 1994/95

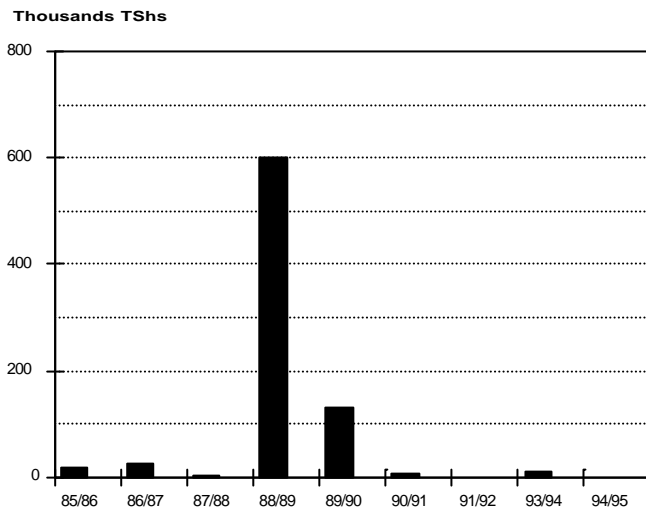


Fig. 46: Honey products in Kgs, Mwanza region for 1985/86 - 1994/95

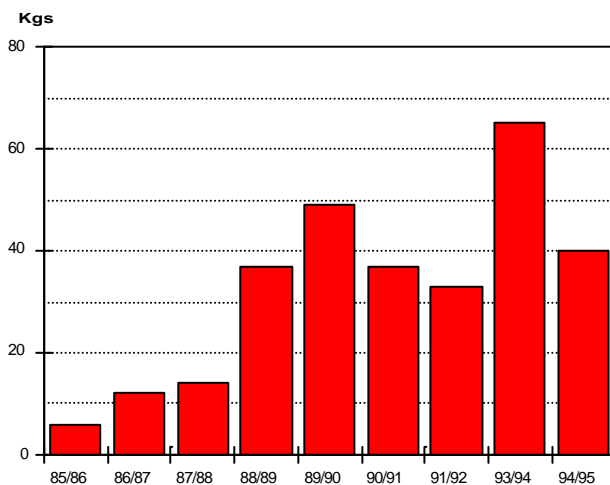
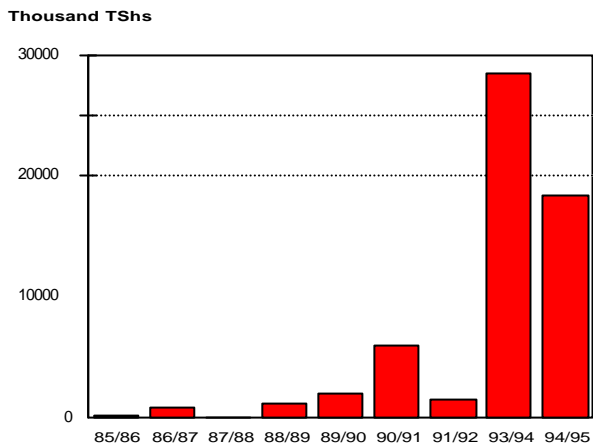


Fig. 47: Value in T.Shs. for Honey, Mwanza region for 1985/86 - 1994/95



2.3.6 WILDLIFE:

Mwanza region is not well endowed with wildlife. It has only a small game reserved area. Table II-21 clarifies this fact. Because of the very limited game reserved area, the wildlife/tourism sector has contributed very little to the region's economy. The only revenue realised and collected by the region has come from local hunting and a little bit from fines imposed on poachers netted within the game reserves and controlled areas (Table II-22 refers).

Table II-21: TYPE AND AREA OCCUPIED BY GAME RESERVES IN MWANZA REGION 1996

TYPE	COVERAGE (AREA)
<p>A: <u>GAME RESERVES:</u></p> <p>1. Kijereshi</p> <p>2. Sanane Island</p> <p>3. Rubondo Island</p>	<p>67.76 km²</p> <p>0.5 sq.km²</p> <p>456.8 km²</p>
<p>B <u>GAME CONTROLLED AREA:</u></p> <p>1. Chabula Marsh</p> <p>2. Maswa game controlled area</p>	<p>Sq. 100km</p> <p>N.B. Mwanza area is 50sq.km. (Shinyanga + Mwanza area is 10,000 sq.km.)</p>
<p><u>OPEN AREA:</u></p> <p>Mwamalae (Kwimba)</p> <p>Mabuki Runch</p> <p>Forest Reserve (Geita)</p> <p>Buhindi (Sengerema)</p>	

Source: Mwanza Regional Game Office, Annual Report, 1996

Table II-22: NUMBER OF POACHERS AND REVENUE FROM TOURISTS HUNTING - MWANZA REGION

Year	Number of Poachers Netted	Revenue From Tourists Hunting	Local Hunting Tshs.
1990	8	-	87,440.00
1991	9	-	344,29160
1992	9	-	475,941.50
1993	4	-	162,250.00
1994	-	-	255,000.00
1995	-	-	142,900.00
1996	15	-	477,500.00
Total	45	-	1,945,323.10

Source: Mwanza Regional Game Office, Annual Reports 1990-1996

2.3.7 INDUSTRIAL DEVELOPMENT:

Although for the foreseeable future livestock husbandry, agriculture and fishing will remain the sectors offering the greatest development potentials to Mwanza region, an increasingly important role must be assigned to industrial activity as a vehicle of economic growth. It is through industrial development in the region that the ever increasing number of unemployed youths in the region could gain employment opportunities. Industrial establishments possible are those geared towards processing locally produced agricultural, fishing and livestock raw materials.

Industrial processing and manufacturing is a subsector where some significant advances have already been made in the region. There are about 90 of such major industrial establishments in the region, 73 of which are in Mwanza town. The 17 are located in other various districts.. These are the 13 cotton lint processing industries and 4 Cooking Oil and Seed Lake industries (Table II-23).

The most notable processing and manufacturing industries are: The Mwanza Breweries. cotton ginneries, fish fillet processing plants and the Coca Cola Plant. These industries offer quite substantial employment opportunities. Had it been that the Mwanza Textile Mill was operating, an estimated number of over 3000 people would have gained employment.

The region in collaboration with the Ministry of Industries is working hard in implementing the national policy of privatisation. Mwanza Tanneries now known as African Tanneries has been privatised and it is under rehabilitation. Mwanza Breweries is already operating under joint ownership of INDO and NDC. Nyanza Glassworks is still undergoing the privatisation process. It is still uncompleted. Works on the factory stopped in 1985 though it was expected to be completed in 1983. The factory was intended to supply required bottles for the Mwanza Breweries and Coca Cola plants in Mwanza, Shinyanga, Musoma and Kagera.

Mwatex and Continental Foundry and Forging Corp. are both undergoing the privatisation process.

The manufacture of food, beverages, the processing of fish from Lake Victoria and the processing of cotton are the major industrial subsectors.

Minor industrial establishments such as motor vehicle garages, carpentry workshops and similar activities have not been included in this list. They are informal sector industrial activities. They consists of enterprises which may or may not be registered. They do not have access to neither government support nor access to financial institutions and organised markets. They are also in the Tanzanian context enterprises with less than five (5) employees, paid or unpaid. However, they should not be under-estimated in their importance in terms of employed or self employment opportunities for youths of various skills.

Table II-23: MWANZA REGION INDUSTRIAL PROCESSING AND MANUFACTURING ESTABLISHMENTS 1996

S/NO	NAME OF PRODUCT	ESTABLISHMENT	NAME OF INDUSTRY	LOCATION	WORKING	NOT WORKING	TOTAL
1	Fish fillets	9	1. Viefish Ltd.	Igogo	1	-	1
			2. Tanzania Fish Processors Ltd.	Ugogo	1	-	1
			3. Nile Perch fisheries Ltd.	Nyakato	1	-	1
			4. Tanperch Ltd.	Ilemela	1	-	1
			5. Omega Fish Ltd.	Ilemela	1	-	1
			6. Fish and Meat (T) Corporation Ltd.	Igogo	1	-	1
			7. Mwanza Fishing Industries Ltd.	Ilemela	1	-	1
			8. Victoria Fisheries Ltd.	Igogo	1	-	1
			9. Tanzania Fisheries Development Corporation Ltd.	Ilemela	-	1	1
				Total		8	1

2	Cooking Oil and Cotton Seed Cakes	11	1. Voil	Igogo	1	-	1
			2. Bibiti Oil Mill Ltd	Igogo	1	-	1
			3. Farai Oil Mill Ltd.	Nyakato	1	-	1
			4. Dynamic Oil Mill Ltd.	Nyakato	1	-	1
			5. Birchand Oil Mill Ltd.	Igoma	1	-	1
			6. Buchosa) 7. Nassa) 8. Nyambiti) 9. Ukerewe)NCU 10. New Era) (1984) 11. Jackshons Ltd. Victoria &Co. Ltd.)		1 1	- -	1 1
				Kenyatta Road	1 1 1 1	- - - -	1 1 1 1
					11	-	11

3	Cotton Lint & Cotton Sees	14	1. Buchosa)		1	-	1
			2. Bukumbi)		1	-	1
			3. Buyagu)		1	-	1
			4. Kasamwa)NCU		1	-	1
			5. Magu)(1984)		1	-	1
			6. Nassa)Ltd.		1	-	1
			7. Ngassamo)		1	-	1
			8. Nyamgiti)		1	-	1
			9. Nyamiliro)		1	-	1
			10. Ukerewe)		1	-	1
			11. Aquva Ginners Tanzania Ltd.	Magu	1	-	1
				Ramadi	1	-	1
			12. Dynamic Cotton Ginnery Ltd.	Geita	1	-	1
			13. Copcot Cotton Trading (T)	Igoma	1	-	1
14. Birchard Oil Mill Ltd.							
Total				14	-	14	
4.	Beers Brewed & Packaged Safari Lager Kilimanja ro Premium Lager & Castle Lager	1	Tanzania Breweries Ltd.	Bwiru	1	-	1
				Total			
5.	Soft Drinks CocaCola Fanta Sprite Etc.	1	Nyanza Bottling Co. Ltd.	Nyakato	1	-	1
				Total			

6.	Wet Blue Plain Upper Sole Leather Garment Leather fish Skins	1	Africa Tanneries Ltd.	Ilemela	1	-	1
				Total	1	-	1
7.	Foam Mattress	3	1. Banco Products (T) Ltd	Nyakato	1	-	1
				Mkuyuni	1	-	1
			3. Tanken Industries Ltd.	Nyakato	1	-	1
				Total	3	-	3
8.	Textiles	2	1. Mwanza Textiles Ltd.	Nyakato	-	1	1
				Nyakato	-	1	1
			Total	-	2	2	
9.	Fishnets & Twines	1	1. Mwanza Fishnet Manufacturers Ltd.	Igogo	1	-	1
10.	Soap	2	1. Mwanza soap Industries Ltd.	Igogo	1	-	1
				Igoma	-	1	1
			Total	1	1	2	
11.	Paints	1	1. Banco Products (T) Ltd.	Nyakato	1	-	1
12.	Metal Products Sufuria etc.	1	1. Jay's Metal products Ltd.	Mkuyuni	1	-	1

13.	Ginnery Spares Automobile Spares, Oil Mill Spares etc.	3	1. DM Investments Group CT + U (T) Ltd. 2. Pamba Engineering Ltd. 3. Pamba Industries Ltd.	Nyakato	1	-	1
				Nyakato	1	-	1
				Nyakato	1	-	1
				Total	3	-	3
14.	Ship, Boat & Ferry Building	1	1. Mwanza Ship, boat, Ferry Builders Ltd.	Ilemela	1	-	1
15.	Biscuits	2	1. Furaha Nyanza Co. Ltd. 2. Bakers Pride (1994) Ltd.	Ilemela	1	-	1
				Igogo	1	-	1
				Total	2	-	2
16.	Pharmaceuticals	1	1. Mwanza Pharmaceuticals Ltd.	Igogo	1	-	1
17.	Printing & Publishment & Books	5		Total	1	-	1
			1. Continental Printing & Packaging Corporation Ltd.	Ilemela	1	-	1
			2. Lake Printing Co. Ltd.	Kenyatta Road	1	-	1
			3. Mwanza Printing Ltd.	Kenyatta Road	1	-	1
			4. Pamba Printing Ltd.	Rumah Street	1	-	1
			5. United Stationery & Printing Ltd.	Bantu Street	1	-	1
			Total	5	-	5	

18.	Cosmetics	8	1. Mbusiro Manufacturers	CCM:BD G. Kitangili	1	-	1
			2. Bright Oyat Manufacturers Ltd.	Pasiansi	1	-	1
			3. M/S Global Laboratories & Chmicals Ltd.	Mkuyuni	1	-	1
				Rufiji	1	-	1
			4. Parmal enterprises	Igogo	1	-	1
			5. Ashif. F. Ladhani Lt	Igogo	-	1	1
			6. S.D.K. Kotecha Cosmetics Ltd	Nyakato	1	-	1
			7. Regent Cosmetics Ltd.	Nyakato	1	-	1
			8. Valla Product (T) Lt			-	1
			Total	7	1	8	
19.	Plastic goods	10	1. Amiralis Rashid	Nyerere Road	-	1	1
			2. Dynamic Plastic Co. Ltd.	Nyakato	1	-	1
			3. Super Plastic Industries Ltd.	Nyerere Road	1	-	1
			4. Mwanza Metro Ltd.	Nyakato	1	-	1
			5. Regent Plastic Ltd.	Nyakato	1	-	1
			6. Anisha A. Hemani	Nyerere Road	1	-	1
			7. Blowplast	Mabatini	1	-	1
			8. Banco Products (T) Ltd.	Nyakato	1	-	1
			9. Voil	Igogo			
			Total	9	1	10	

20.	Food Processing (Juice, Tomato Sauce Chilli Sauce Drinking Water etc.	4	1. Regent food & Drinks Ltd.	Nyakato	1	-	1
			2. Mwanza Food Industries Ltd.	Nyakato	1	-	1
			3. Ashif F. Ladhani Ltd.	Igogo	1	-	1
			4. Voil	Igogo	1	-	1
				Total	4	-	4
21.	Industrial and Medical Gases (Oxygen Gas)	1	1. TOL Limited	Nyakato	1	-	1
				Total	1	-	1
22.	Tyre Retreading	1	1. Regent Retreading Ltd.	Igogo	1	-	1
				Total	1	-	1
23.	Surgical Cotton Wool	1	1. Medical Hygienic Products Ltd.	Nyakato	1	-	1
				Total	1	-	1
24.	Printing & Publishing News papers & Books	6	1. Continental Printing & Packaging Corporation Ltd.	Ilemela	1	-	1
			2. Lake Printing works Ltd.	Kenyatta Road Bantu Street	1	-	1
			3. New United Stationeries & Printers Ltd.	Nkuru-mah Rd.	1	-	1
			4. Pamba Printers	Keyatta Road	1	-	1
			5. Mwanza Pinters Ltd.	Kenyatta Road	1	-	1
			6. Graphics and Systems Ltd.				

				Total	6	-	6
				Grand-Total	84	6	90

2.3.8 MINING:

Geita is one of the large districts second only to Sengerema in the region. The most glamorous feature of Geita district is the presence of gold. It has led to an influx of prospecting companies to the extent of a “Gold Rush” in a Tanzanian sense. The gold in the district is part of Tanzanian’s greenstone belt comprising Geita, Rwamagaza, Kahama, Nzega, Musoma and Iramba Sekenke. These areas are also collectively known as Lake Victoria goldfields. At present there are more than 30 big companies prospecting in the district. Already there are economic activity changes taking place in the district. This is, however, just the beginning. It is the prospecting phase. When actual mining starts in 3-5 years, the impact is likely to be very big in all respects for the district, region and for the nation as a whole in terms of job opportunities and economic benefits.

Gold mining in the past had been in the hands of both illegal and legalised small scale miners. Until about 2 years ago the involvement of illegal miners in Geita district was put to a halt, leaving the legally and licenced small miners to carry out the mining. Gold output by these miners has been very small compared to the potential gold deposits. While gold prospecting by big companies is going on, small miners are going on with the digging. More recent data on gold mining Table II-24 and Fig. II-5 provide the following information on gold purchases by Bank of Tanzania (BOT) and National Bank of Commerce (NBC). Gold purchases by BOT and NBC from small gold miners started in 1990, from this initiative the country earned a

lot of gold and reached the peak of purchases in 1991. The following year purchases dropped by almost 25 percent. Declines in purchases continued to fall drastically and by the year 1994 purchases of gold by these two bodies was comparatively negligible (See Figure II-5). This apparent decline can be explained by the fact that only negligible quantities are now passing through these channels. The bulk of the gold is odd on the informal market. Secondly, many gold fields formally exploited by small miners are closed to them, this being a part of the transition process to company mining.

Table II-24: PERFORMANCE OF THE MINIG SECTOR MWANZA REGION 1990-1997

Year	Weight of Gold (Gms)	Value of gold TShs.
1990	630,268.1	204,170,895
1991	1,590,635.5	5,101,501,825
1992	1,218,378.8	4,337,432,088
1993	435,009.7	1,556,115,442
1994	62,702.8	295,223,103
1995	35,092.6	149,143,550
1996	3,911.3	16,977,500
1997 (August)	5,528.6	23,763,980

Source: Compiled Data: Zonal Miners Office, Mwanza - Ministry of Energy and Minerals, 1997

Fig. 48: Weight of Gold in (Thousand Grms) in Mwanza region 1990 - 1997(Aug.)



Fig. 49: Mining value in TShs. in Mwanza region, 1990 - 1997(Aug.)



SECTION III

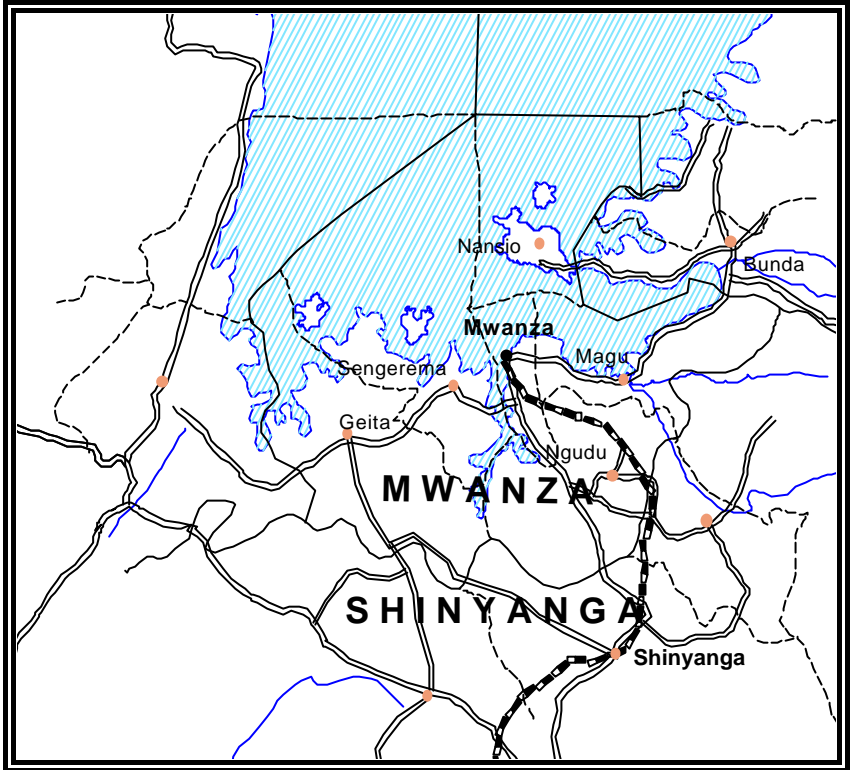
ECONOMIC INFRASTRUCTURE

3.1 INTRODUCTION

Transport is an essential service for both economic and non economic activities. Growth in agriculture and industrial production, trade, national political integration, national defence and administrative activities all involve the movement of people, goods and services. This sector remains one of the most important, although its contribution to total GDP is small compared to other sectors like agriculture. The relatively small contribution to the national GDP does not mean that it is not important. The efficient running of trade, agricultural and industrial sectors greatly depend on the efficient operation of transport, communication and energy resources.

Mwanza region is connected to other parts of the country by road, rail, water and air networks. However, the region is only weakly integrated into the national road network. The major problem area is the absence of a national link to the north-eastern area of Arusha, Moshi and Tanga and the extremely bad conditions of the present gravel roads. The above situation has hampered the development of the region. The remote location of the region compared to the country's market center of gravity means long and costly transport. This fact, in one way or another, has negatively influenced the growth rate of industrial expansion compared to regions like Arusha, Morogoro and Mbeya which are well connected.

ROAD NETWORK IN MWANZA



3.2 ROADS:

Mwanza region has a total of 6,349 kms of roads, and out of these 1,437 kms of roads are the responsibility of the region. In addition to these are the roads which fall under respective districts' responsibility. In all they comprise 2,635.5 km of roads. There are a total of 1,863 kms of feeder roads in the region. The most important roads in the region are the trunk roads which in Mwanza region total up to 413 km. Table III-I shows the above type and of road and distribution by district as of 1996.

TABLE III-1 ROAD NETWORK, LENGTH (Kms), TYPE OF ROAD, DISTRIBUTION BY DISTRICT

DISTRICT	TYPE OF ROAD				TOTAL (Kms)
	Trunk Roads (Kms)	Regional Roads (Kms)	District Roads (Kms)	Feeder Roads (Kms)	
Ukerewe	0	110.0	255.0	0.0	365
Magu	128.0	165.0	393.0	550.0	1,236
Mwanza	33.5	132.0	695.5	0.0	861
Kwimba	113.0	361.0	364.0	508.0	1,346
Sengerema	78.0	286.0	428.0	232.0	1,024
Geita	61.0	383.0	500.0	573.0	1,517
Total	413.5	1,437.0	2,635.5	1,863.0	6,349

Source: Rolling Plan and Forward Budget 1997/98-1999/2000 Mwanza region

Mwanza region has three trunk roads which also serve as the major communication links with the neighboring regions of Mara, Shinyanga and Kagera. These roads are:

Mwanza to Shinyanga Road,
Mwanza to Musoma Road,
Mwanza to Bukoba Road

All these roads start or end in the regional center, Mwanza town. The town is holding the position as the most important communication center or transport node for the whole Lake Region Area.

Most of the roads are of gravel and earth. It is only some roads in Mwanza town and the Mwanza to Musoma trunk road that have been bitumenised. There are only 139.5 km of such roads in the region. Currently the Mwanza to Shinyanga trunk road is under reconstruction by being resurfaced with tarmac. Most of the roads in the region are in urgent need of improved road surface, better drainage and more intensive maintenance. Improvement of the road network as well as increasing total road length are very important in the opening up of new agricultural potential avenues, stimulating trade and making easy the movement of people. The following table shows the current roads by district.

TABLE III-2 DISTRIBUTION OF ROADS BY DISTRICT, MWANZA REGION

DISTRICT	ROAD SURFACE			TOTAL (Kms)
	Tarmac(km s)	Gravel (kms)	Earth (kms)	
Ukerewe	0.00	12.00	353.00	365.00
Magu	120.00	125.00	991.00	1,236.00
Mwanza	19.50	49.00	792.50	861.00
Kwimba	0.00	373.00	973.00	1,346.00
Sengerema	0.00	248.00	776.00	1,024.00

Geita	0.00	256.00	1,261.00	1,517.00
Total	139.50	1,063.00	5,146.50	6,349.00

Source: Rolling Plan and Forward Budget 1997/98-199/2000 Mwanza Region

More emphasis needs to be placed on improvement of feeder roads because these do connect the majority of the people (who are in rural areas) with the rest of the region. One of the factors determining whether or not the agricultural sector progresses as planned is the condition of the feeder roads and the availability of transport facilities. Poor quality or non-improvement of feeder roads can result in crop spoilage, heavy stress on lorries with subsequent high transportation costs and low utilization of the transport capacity.

TABLE III-3 ROAD DENSITY BY DISTRICT, MWANZA REGION

District	Land Area (sq km)	Total Roads (km)	Road Density (km/sq.km)	Ranking
Magu	3,070	1,236	0.403	3
Kwimba/Missungwi	5,850	1,346	0.230	5
Geita	6,775	1,517	0.224	6
Sengerema	3,335	1,024	0.307	4
Ukerewe	640	365	0.507	2
Mwanza	425	861	2.026	1
Total	20,095	6,349	0.315	

N.B: Road density is measured as length of road per square kilometer of land area.

The above table ranks the district in the order of development of roads. The road density for Geita district is the lowest in the region with only 0.224 km/sq km of land area. While Mwanza district has a very developed road network and the district shows a very high road density with a value of 2.026 km/sq km. The rest of the districts in the region are ranked as shown in Table III-3. Improvement of the Mwanza to Shinyanga to Dodoma trunk roads to tarmac standard would greatly reduce the region's dependence on the Central Railway line for the movement of agricultural and industrial goods to and from the Lake Zone. Similarly the Mwanza to Bukoba to Mtukula trunk road would ease transport of cargo to and from Uganda via Bukoba. The Mwanza to Musoma to Sirari trunk road connects the Lake region to neighbouring Kenya. It is in good shape.

3.3 **MARINE TRANSPORT**

Mwanza region is well served with marine transport. Public marine vessels are the major carriers of both passengers and cargoes destined for the neighboring lake zone regions - Kagera and Mara. There is also marine transport facilities connecting Mwanza lake port with other lake ports of Kenya and Uganda. The significance of this mode of transport on Lake Victoria is well highlighted by the two tables III-4 and III-5. There are private marine vessels also mainly ferries which move passengers to and from Sengerema landing ports and Mwanza district landing areas. It has been established by TRC authorities that their marine vessels utilized on the average about 84 percent of their passenger capacity and 76.1 per cent of the cargo

capacity. For this reason, the present fleet of vessels fulfills the needs of the customers to a very large extent.

TABLE III-4 MAJOR LAKE VICTORIA TRC MARINE TRANSPORT VESSELS

Name of Vessel	Capacity (Number of Passengers)	Cargo Capacity (Tons)	Route
1. M.V. Victoria	1200	200	Mwanza-Bukoba
2. M.V. Butiama	200	100	Mwanza-Ukerewe Kome-Buchezi
3. M.V. Serengeti	593	350	Mwanza-Bukoba
4. M.V. Clarias	290	10	Mwanza-Kome-Buchezi
5. M.V. Umoja	-	1200	Mwanza-Kemondo Bay Musoma-Kisumu (Kenya)
6. M.V. Nyangumi (Tanker Ship)	-	350	Mwanza-Kisumu
7. M.T. Ukerewe	-	720	Mwanza-Musoma-Kemondo Bay-Bukoba
8. M.T. Linda	Port Operation	-	-
9. ML Maindi	-	120	Mwanza-Nansio-Buchezi-Nyamirembe
10 ML Wimbi	-	120	Mwanza-Nansio-Buchezi-Nyamirembe-Solima

TABLE III-5 PERFORMANCE FIGURES FOR TRC MARINE DIVISION FOR THE YEARS 1977-1997

Year	Passenger Ferried	Cargo Ferried (Tons)
1977	128,000	155,000
1978	134,000	102,000
1979	225,000	129,000
1980	315,000	219,000

1981	315,000	122,000
1982	430,000	117,000
1983	571,000	93,000
1984	619,000	111,000
1985	666,000	98,000
1986	720,000	88,000
1987	517,222	N.A
1988	457,720	75,000
1989	403,792	98,500
1990	740,557	103,934
1991	720,205	108,430
1992	502,647	136,919
1993	567,531	177,070
1994	691,195	147,681
1995	711,609	179,456
1996	577,562	145,386
1997 (Estimate)	622,000	148,000

3.4 RAILWAY TRANSPORT

Mwanza region is served by the central line railway system that connects Mwanza with Tabora, Kigoma and Dar es Salaam. The importance of the Central Railway system to the region is felt in hauling agricultural and industrial goods to and from the region. Goods transport from the region is to a great extent dominated by

cotton. This applies for all the railway stations within the region. Railway stations within the region which serve as embarking and disembarking stations are: Mwanza Town Station, Mwanza South, Fela, Nantare, Bukwimba and Malya. Passengers are also ferried by this Central Railway system.

3.5 AIR TRANSPORT

Mwanza region is served by one major airport which is on the outskirts of the town. It is capable of landing Boeing 737 aircraft. The capacity of Mwanza Airport is at present well utilized and there is a high demand for air transport particularly among businessmen. The demand sometimes exceeds the supply. Though the number of flights has been increased total demand is still unmet. Air Tanzania a public airline is the main scheduled airline operating daily between Mwanza and Dar es Salaam via Kilimanjaro International Airport. In addition to Air Tanzania domestic flights, private sector companies also operate regularly from Mwanza to places like Dodoma, Bukoba, Kampala and Nairobi.

3.6 COMMUNICATION NETWORK

By the end of 1996 Mwanza region had 5,185 Telephone lines and 77 telex lines. Development of this vital service in the region is shown in Table III-6. There are also Fax systems under use mainly in Mwanza town. It is not known how many are in service.

TABLE III-6 TELECOMMUNICATION SERVICES IN MWANZA REGION

Year	TYPE OF SERVICE	
	Telephone Lines	Telex Lines
1990	4,993	88
1991	5,100	90
1992	5,206	96

1993	5,185	96
1994	5,290	87
1995	5,262	89
1996	5,185	77
1997 (June)	4,903	65

Source: Mwanza Regional Telecomms Office, 1997

3.7

ENERGY

There are two main sources of energy used mainly by the population in Mwanza region. Electricity is a source of energy used for industrial and domestic purposes. Its use for domestic purposes is limited to residents in township areas and those who can afford it. The rural population which comprises over 82 per cent of the regional population depend on firewood or charcoal as the main source of energy. It has been cited earlier that about 171,000 tons of fuelwood is annually harvested for domestic energy purposes in Mwanza region. It is also a general fact that fuelwood which includes firewood and charcoal accounts for more than 97 per cent of the total energy used in the region for domestic purposes. The supply of this form of energy is getting scarce. The search for this source of energy has resulted in the destruction of forests. Indiscriminate cutting of trees for fuel has in turn resulted in soil erosion and other forms of land degradation.

Electricity as an alternative source of energy for the rural majority of the population in the region is out of reach for them. Their economic capability does not allow them to take advantage of this source of energy even if it could be made available. Based on the 1988 Population Census only 5.4 per cent of households in the region had electricity. Table III-7 highlights the number of households in Mwanza region supplied with electricity in that year. It is further observed from Table III-7 that apart from Mwanza district with 35.0 percent of households supplied with electricity, Magu and Kwimba

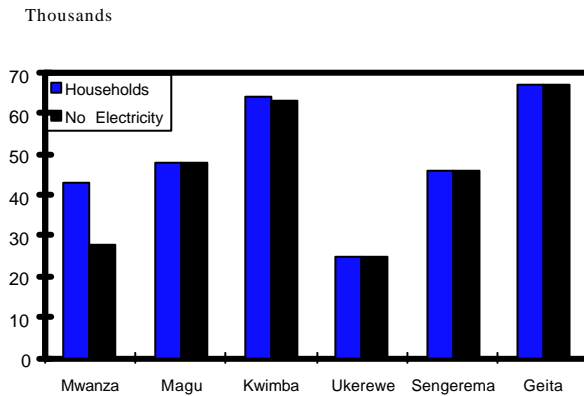
had less than 1 per cent of its household supplied with this source of energy, Ukerewe, Sengerema and Geita had none at all.

TABLE III-7 HOUSEHOLDS IN MWANZA REGION BY DISTRICT AND ELECTRICITY SUPPLIED 1988

District	Total Households	Households supplied with Electricity	Households not supplied with Electricity	Percent with Electricity
Mwanza	42,722	14,983	27,739	35
Magu	48,016	288	47,728	0.6
Kwimba	63,876	514	63,362	0.8
Ukerewe	25,129	-	25,129	0
Sengerema	46,417	-	46,417	0
Geita	66,802	-	66,802	0
Total	292,962	15,785	277,177	5.4

Source: Regional Manager, TANESCO, MWANZA - 1997

Fig. 50: Households in Mwanza Region By District and households with no electricity Supplied 1988



SECTION IV

SOCIAL SERVICE

4.1 EDUCATION SECTOR

4.1.1 Primary School Education

The driving aim of primary education policy in Tanzania has been to offer every Tanzanian child of school going age (7 years) an opportunity in primary education. Targets for achieving Universal Primary Education (UPE) had been set annually but rarely had been fully realized. The obstacles against target realization had been many and diverse in nature. Lack of adequate construction materials, lack of teaching staff and inadequate transport for transporting construction and teaching materials.

i) Primary School Enrolment

At the onset of UPE in 1974 the region had 476 Primary Schools with an enrolment of 89,653 children. By 1996 there were 864 primary schools (857 public and 7 private) with a total enrolment of 332,787 pupils, an increase of 271 per cent (Table IV-1). Comparison of enrolment targets and actual pupil enrolment achievements is highlighted in Table IV-2.

TABLE IV-1 PRIMARY SCHOOL EXPANSION AND STUDENT ENROLLMENTS IN MWANZA REGION 1974-1996

District	Number of Primary Schools			1996% increase over 1974	Number of Pupils in Primary School			1996 % increase over 1974
	1974	1985	1996		1974	1985	1996	
Magu	119	136	157	32	19,506	44,706	56,593	190
Kwimba	114	206	220	93	22,660	76,549	72,387	219
Geita	158	186	197	25	27,644*	61,080	68,624	148
Sengerema	-	127	147	-	-	45,035	51,456	-
Ukerewe	65	81	81	25	14,046	29,995	37,012	163
Mwanza	20	56	62	210	5,797	29,981	46,715	705
Total	476	792	864	82	89,653	282,781	332,787	271

*: Geita included Sengerema district by then

Source: Data compiled from Regional Education Office Mwanza - 1997

TABLE IV-2: PRIMARY SCHOOL ENROLMENT RATES AND TARGETS FOR MWANZA REGION, 1974 and 1996

District	Enrolment Targets		Actual Enrolment			
	1974	1996	1974	%	1996	%
Magu	22,430	61,953	19,506	87	56,593	91%
Kwimba	26,060	78,763	22,660	87	72,387	92%
Geita	31,900	92,595	27,644*	87	68,624	74%
Sengerema	-	59,328	-		51,456	87%
Ukerewe	16,150	37,990	14,046	87	37,012	97%
Mwanza	6,670	84,862	5,797	87	46,715	55%

Total	103,210	415,491	89653	87	332,787	80%
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Source: Regional Education Office, Mwanza Annual Report 1996

* Geita included Sengerema district by then

The outstanding feature in this table is that the number of pupils actually enrolled was less than the targets set for both periods of 1974 and 1996. This fact probably proves the existence of the obstacles earlier stated.

Comparison of enrolment rate by sex is shown in Table IV-3, here it is observed that enrollment of boys between 1986 and 1996, in an interval of 10 years increased from 153,708 to 169,980. This is an increase of 12,272 pupils or 10 per cent. The number of girls enrolled during the same period increased by 12,391 pupils going from 150,416 to 162,807. This again shows an equivalent increase of 8 per cent. The highest enrolment increase in that period of 10 years was recorded in Mwanza district which was 77 per cent for boys and girls. Sengerema district recorded a negative increase of -9 per cent for boys and Kwimba registered a negative increase of -4 per cent for the girls during the period.

TABLE IV-3 PRIMARY SCHOOL ENROLMENT RATE BY SEX AND BY DISTRICT FOR MWANZA REGION, 1986-1996

District	Boys		Girls		Enrolment Increase %	
	1986	1996	1986	1996	Boys	Girls
Magu	17,441	28,823	27,938	27,770	65%	-1%
Kwimba/Misungwi	39,109	36,597	37,235	35,790	-6%	-4%
Geita	33,840	35,938	31,837	32,686	6%	3%
Sengerema	26,740	26,497	23,721	24,958	-9%	5%
Ukerewe	16,565	19,057	16,310	17,955	15%	10%

Mwanza	13,013	23,068	13,375	23,647	77%	77%
Total	153,708	169,980	150,416	162,807	10%	8%

Source: Regional Education Office, Mwanza Annual Report 1996

Fig. 51: Primary school enrolment rate by sex and district in Mwanza region, 1986

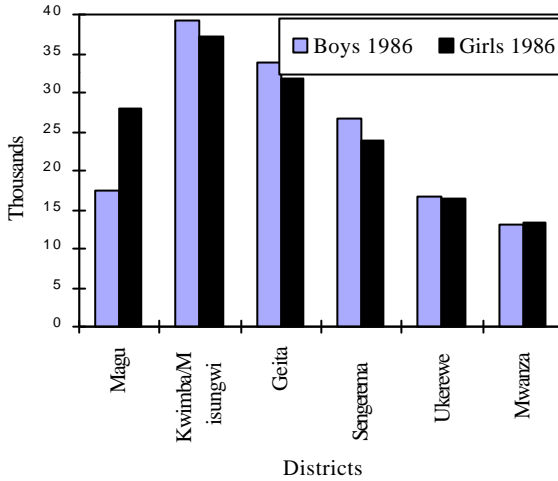


Fig. 52: Primary school enrolment rate by district and sex in Mwanza region, 1996

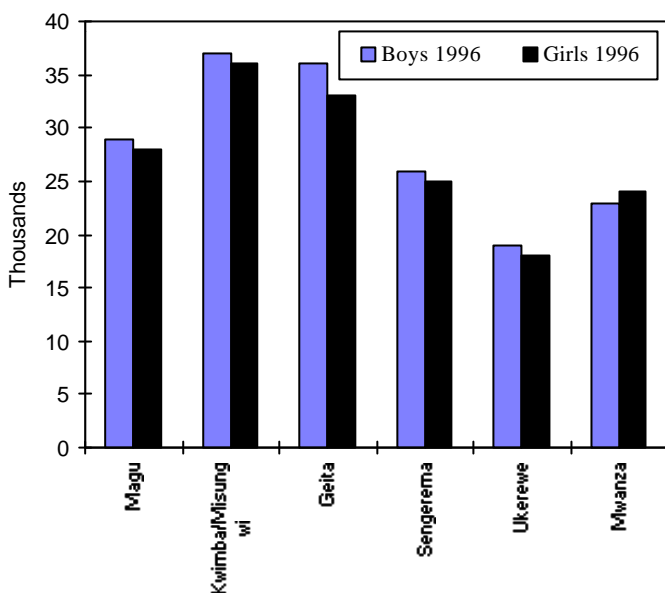
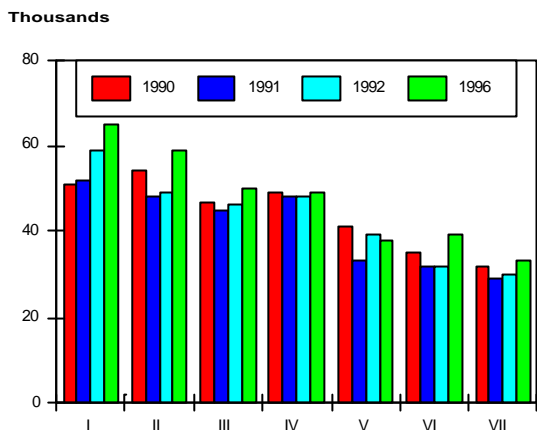


TABLE IV-4 ENROLMENT IN PUBLIC PRIMARY SCHOOLS BY SEX AND GRADE - MWANZA REGION, 1990 - 1996

SEX	YEAR	GRADE							TOTAL
		I	II	III	IV	V	VI	VII	
BOYS	1990	26331	26725	24425	24725	21355	17622	16601	157754
	1991	26036	24300	23292	24475	16925	16386	13382	144792
	1992	30461	25597	23097	24048	19349	16767	15108	154427
	1996	32776	29892	25494	25247	19888	16580	16982	166859
GIRLS	1990	24818	26963	22120	24731	19578	17821	15024	151055
	1991	25627	23341	22000	23458	15660	15599	15727	141412
	1992	28682	23674	22759	23633	19373	15318	14912	148351
	1996	32021	28823	24752	24230	18148	19078	15638	162690
TOTAL	1990	51149	53688	46545	49456	40933	35443	31625	308809
	1991	51663	47641	45292	47933	32585	31985	29109	286208
	1992	59143	49271	45856	47681	38722	32085	30020	302778
	1996	64797	58715	50246	49477	38036	38658	32620	329549

SOURCE: Regional Education Office, Mwanza Annual Report 1996

Fig. 53: Total Enrolment in Public Primary Schools by Grade, Mwanza Region, 1990 - 1992 and 1996



Reference to Table IV-4 shows the enrolment of boys (St.1-VII) increased from 157,754 in 1990 to 166,427 in 1996 an increase of 6 per cent. However, the enrolment of girls increased from 151,055 to 162,690 or 8 per cents in the same period.

Table IV-5 and IV-6 compare increases in the number of public primary schools and enrolment of pupils from 1985-1996.

TABLE IV-5 THE NUMBER OF PUBLIC PRIMARY SCHOOLS IN MWANZA REGION, 1985 TO 1996

District	NUMBER OF SCHOOLS					% Increase 1985 to 1996
	1985	1990	1992	1995	1996	
Magu	136	146	156	156	157	15%
Kwimba/Misungwi	206	212	220	220	220	7%
Geita	186	188	193	194	197	6%

Sengerema	125	129	130	145	145	16%
Ukerewe	81	81	81	81	81	0%
Mwanza	51	56	57	57	57	12%
Total	785	812	837	853	857	9%

Source: Regional Education Office, Mwanza Annual Reports 1996

Private Primary Schools in Mwanza Region 1996

Magu	Nil
Kwimba/Missungwi	Nil
Geita	Nil
Sengerema	2
Ukerewe	Nil
Mwanza	<u>5</u>
Total:	7

TABLE IV-6 THE NUMBER OF PUPILS IN PRIMARY SCHOOLS, MWANZA REGION FROM 1985 TO 1996

District	Number of Pupils					% Increase 1985 to 1996
	1985	1991	1992	1993	1996	
Magu	44,706	51,936	53,091	52,331	56,593	26.6%
Kwimba/Misungwi	76,549	65,363	68,158	67,014	72,387	-5.5%
Geita	61,080	53,890	58,739	60,889	68,624	12.3%

Sengerema	45,035	48,819	50,039	50,569	51,456	14.2%
Ukerewe	29,995	34,145	33,191	33,762	37,012	23.3
Mwanza	29,981	35,055	37,777	38,904	46,715	55.8
Total	282,781	289,208	300,995	303,469	332,787	17.7%

Source: Regional Education Office, Mwanza Annual Report 1996

Sengerema district increased the number of primary schools by 16 per cent, this was the highest in the region, followed by Magu district with 15 per cent. Ukerewe did not register any increase. By 1996 the region had 7 private primary schools, 5 in Mwanza and 2 in Sengerema.

In the period of eleven years (1985-1996) Mwanza district registered the highest increase in the number of primary school pupils, the increase was 55.8 per cent. Magu registered the second highest increase at 26.6 per cent. Ukerewe had an enrolment increase of 23.3 per cent. For unknown reasons the number of primary school pupil enrolment in Kwimba district dropped from 76,549 in 1985 to 72,387 in 1996. Overall increase in pupil enrolment in the region increased from 282,781 in 1985 to 332,787 in 1996, an increase of 17.7 per cent.

ii) **Student Drop-out**

The Drop-out of primary school pupils has been a common problem in the region. The most common cause for the drop-out has been explained by the district authorities to be truancy. Truancy in general has accounted for 86 per cent of student dropouts in 1996. Pregnancy and deaths each contributed 4 per cent (Table IV-7).

There was a total of 5,991 dropouts out of 332,787 registered primary school pupils in 1996. This dropout figure represents a 1.8 per cent of the total number of enrolment. Drop-out analysis by districts reveals that Magu took the lead with 26.9 per cent of the total number of dropouts in that year, followed by Sengerema district with 22.4 per cent. Magu registered 1609 dropouts and 1343 in Sengerema district. Ukerewe registered the least. Truancy alone in these districts accounted for 1468 dropouts in Magu and 1158 in Sengerema (Table IV-8).

TABLE IV-7 REASONS FOR PRIMARY SCHOOL DROP-OUTS - MWANZA REGION - 1996

Reason	Number of Pupils	%
Truancy	5,166	86%
Pregnancy	237	4%
Death	241	4%
Other	347	6%
Total	5,991	100%

Source: Regional Education Office, Mwanza Annual Report 1996

Fig. 54: Percentage of reasons for Primary School Drop-outs, Mwanza Region, 1996

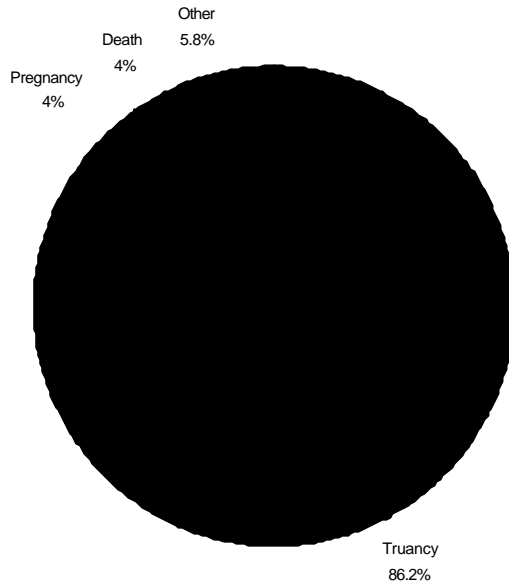


Fig. 55: Percentage of Regional Total Drop-outs of Primary School by District, 1996

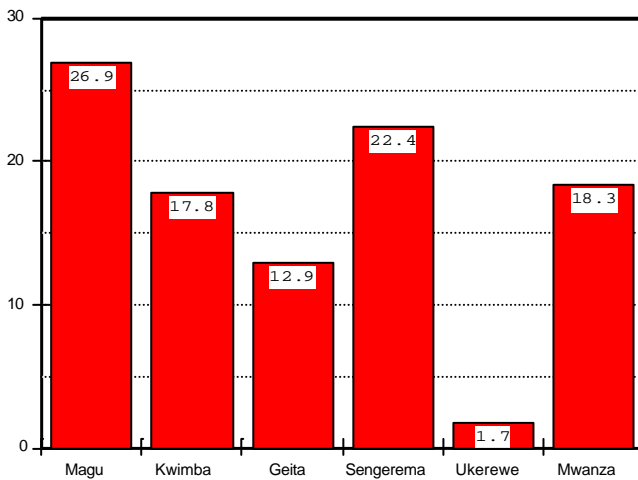


TABLE IV-8 PRIMARY SCHOOL DROP-OUTS BY DISTRICT AND REASON FOR MWANZA REGION 1996

District	Reason for Drop-out	DROP-OUTS		% of Regional Total Drop-out
		Number	%	
Magu	Truancy	1468	91.	26.9
	Pregnancy	20	5	
	Death	35	1	
	Other	86	2	
Total		1609	100	
Kwimba	Truancy	844	79	17.8
	Pregnancy	73	7	
	Death	37	3.5	
	Other	112	10.	
Total		1066	100	
Geita	Truancy	632	82	12.9
	Pregnancy	39	5	
	Death	46	6	
	Other	54	7	
Total		771	100	
Sengerema	Truancy	1158	86	22.4
	Pregnancy	63	5	
	Death	49	4	
	Other	73	5	
Total		1343	100	
Ukerewe	Truancy	71	72	1.7
	Pregnancy	5	5	
	Death	21	21	
	Other	2	2	
Total		99	100	

Mwanza	Truancy	993	90	18.3
	Pregnancy	37	3	
	Death	53	5	
	Other	20	2	
Total		1103	100	
Grand Total		5,991		100

Source: Regional Education Office, Mwanza Annual Report 1996

The 1468 dropouts due to truancy in Magu represent 2.6 per cent of the total 56,593 pupils enrolled. Sengerema with 1158 dropouts due to truancy represents 2.3 per cent out of 51,456 enrolled. Further observations from Table IV-8 reveals high figures for pregnancy cases in Kwimba district which in 1996 had 73 cases. This was followed by Sengerema with 63 and Geita 39 cases. There was 37 cases in Mwanza district, 20 cases for Magu and only 5 for Ukerewe. In total there were 237 cases of pregnancy in the region in 1996.

TABLE IV-9 DROP-OUT FROM PRIMARY SCHOOLS IN EIGHT SELECTED REGION - 1996

Region	G R A D E S							Total Rank	
	I	II	III	IV	V	VI	VII		
Kilimanjaro	242	436	710	976	645	848	895	4752	4
Arusha	392	486	486	773	543	641	695	4016	5
Dar es Salaam	225	298	451	641	426	432	326	2799	6
Kagera	210	420	653	1131	1052	1134	1145	5745	3
Mara	211	224	295	437	418	355	567	2107	7
Mbeya	334	403	368	552	584	584	638	6406	1
Iringa	76	89	126	231	119	209	295	1145	8

Mwanza	402	707	981	1015	881	912	1093	5991	2
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Source: Planning Commission: Compiled Data 1996

It is again observed from Table IV-9 that Mwanza region among the selected eight regions ranks, second after Mbeya region in the number of drop-outs. Iringa had the least number.

Primary School Buildings

iii) Classrooms

Taking a glance at Table IV-10 one quickly observes the sad situation prevailing in almost all the districts in the region. Classrooms available are far below the requirements. Sengerema and Magu have been able to meet the requirement by about 25 per cent only. Districts which have done relatively better in classroom construction are Geita and Kwimba, whereby each has been able to meet at least 75 per cent of classroom requirements. Over all classroom requirements in the region is 7,253, and what is available is only 3,930 classrooms leaving a deficit of 3,323 classrooms, equivalent to 45.8 per cent.

It is the national policy that for effective communication between the teacher and the pupil, the number of pupils per classroom should not be more than 45. From this fact with the regional primary school student enrolment of 332,787 in 1996 each classroom on the average accomodates 85 pupils (Table IV-12).

TABLE IV-10 SITUATION OF PRIMARY SCHOOL CLASSROOMS BY DISTRICT 1996

District	Required Classrooms	Actual	Deficiency	Percent Deficiency
Magu	1304	336	968	74
Kwimba	1656	1282	389	23
Geita	1585	1264	321	20
Sengerema	1154	277	877	76
Ukerewe	788	291	497	63
Mwanza	766	480	286	37
Total	7253	3930	3323	45.8

Source: Regional Education Office, Mwanza Annual Report 1996

TABLE IV-11 SITUATION OF PRIMARY SCHOOL TEACHERS HOUSES BY DISTRICT 1996

District	Required Teachers Houses	Actual	Deficiency	Per cent Deficiency
Magu	1616	202	1414	88
Kwimba	2148	952	1196	56
Geita	1790	745	1045	58
Sengerema	1527	153	1374	90
Ukerewe	1028	231	797	76
Mwanza	769	127	642	83

Source: Regional Education Office, Mwanza Annual Report 1996

TABLE IV-12 CLASSROOM/PUPIL POPULATION RATIO FOR PRIMARY SCHOOL IN MWANZA REGION, 1996

District	Number of Pupils	Number of Classrooms	Pupils per Classroom
Magu	56,593	336	1:168
Kwimba/Misungwi	72,387	1282	1:56
Geita	68,624	1264	1:54
Sengerema	51,456	277	1:186
Ukerewe	37,012	291	1:127
Mwanza	46,715	480	1:97
Total	332,787	3,930	1:85

Source: Regional Education Office, Mwanza Annual 1996

In this respect Sengerema district has performed very badly because by having classroom - student ratio of 1:186, then followed by Magu district with 1:168, Ukerewe and Mwanza districts ratios of 1:127 and 1:97 respectively. Kwimba and Geita are not too worse off. These districts have managed to achieve ratios of 1:56 and 1:54 respectively. There is still a lot of work needed to be done in order to reduce the existing imbalance between classroom capacities and student enrolment. No doubt pupils in these districts have been affected adversely academically.

iv) **Teachers Houses**

It can be observed from Table IV-11 the alarming situation of teachers houses. Housing accommodation is a vital incentive that boosts the morale of the teaching staff, lack of it leads to an adverse effect on teaching. It seems there is a positive correlation between

classroom construction achievement and the availability of teacher's houses. Magu and Sengerema again have done badly in this respect. Magu has been able to meet its teacher's housing requirement by 12 per cent and Sengerema has managed 10 per cent only. Kwimba and Geita have done relatively well by reaching achievements of 44 and 42 per cent respectively. Mwanza and Ukerewe districts have managed to maintain achievements of 24 and 17 per cent. The Regional average stands at 27 per cent.

v) **Toilets**

School toilet facilities are basic requirements for every school before it is declared completed. Concerned education authorities have tended to regard provision of this infrastructure as none essential. This is wrong. Table IV-13 gives the regional picture on the provision of toilets. Magu, Geita, Sengerema and Ukerewe each has managed to provide less than 25 per cent of the required toilet facilities. Kwimba and Mwanza have relatively done a little better by managing at least 38 per cent of the required toilet facilities. The Regional shortfall of toilet facilities in Primary Schools stands at 80 per cent. It has been suggested earlier that school classrooms and teachers houses need serious thinking in order to come up with workable strategies. The same is true of toilets.

TABLE IV-13 SITUATION OF PRIMARY SCHOOL TOILETS BY DISTRICT 1996

District	Required Toilets	Actual	Deficiency	Percent Deficiency
Magu	2810	370	2440	87
Kwimba	3268	1020	2248	69

Geita	2583	539	2044	79
Sengerema	2119	191	1928	91
Ukerewe	1204	189	1015	84
Mwanza	993	280	713	62
Total	12,977	2589	10,388	80

Source: Regional Education Office, Mwanza Annual Report 1996

vi - **Teachers**

Mwanza region on the whole has a shortage of 1123 Grade IIIA and 782 Grade IIIB teachers. Ukerewe district has the biggest shortfall of Grade IIIA teachers at 61% followed by Kwimba/Missungwi district at 45%. Magu and Geita each has 44% shortage followed by Mwanza at 24%. Ukerewe has the least shortage of Grade IIIA teachers which is only 40%. Regionally, the shortage of Grade IIIA teachers stands at 23 per cent. The situation with respect to Grade IIIB teachers is much better with Mwanza district showing a 8% shortfall at the top, and Geita at the worst of 28%. See Table IV-14.

TABLE IV-14 PRIMARY SCHOOL; TEACHERS DISPOSITION BY GRADES AND BY DISTRICT, MWANZA REGION - 1996

District	NUMBER OF SCHOOL TEACHERS							
	Required	Actual	Required	Actual	Shortage		% Shortage	
	IIIA		IIIB		IIIA	IIIB	IIIA	IIIB
Magu	763	529	944	776	234	168	44%	22%
Kwimba/Misungwi	924	638	1027	827	286	200	45%	24%
Geita	845	587	1074	840	258	234	44%	28%
Sengerema	669	646	810	795	23	15	4%	2%
Ukerewe	530	330	588	463	200	125	61%	27%
Mwanza	637	515	557	475	122	82	24%	8%
Total	4368	3245	5000	4176	1123	782	33%	19%

Source: Regional Education Office, Mwanza Annual Report 1996

Table IV-15 summarizes key facts on Primary Education in the region and compares these with some selected regions. Mwanza and Mara regions lead in having the highest pupil/school ratio of 385, Iringa having the least at 308. Comparison of the pupil/classroom ratio, shows Shinyanga ranking first at 196 and followed by Mwanza with 85. Iringa has the ratio of 47. Again Shinyanga has the highest pupil/teacher ratio of 56 again followed by Mwanza region with a ratio of 45. Iringa again has the lowest ratio of 37. The table clearly shows that Iringa region is well served in primary school education and Shinyanga is the worst served region. Mwanza is second to Shinyanga in being poorly served. There is no clear reason for these disparities. Could it be that the high population numbers of Mwanza and Shinyanga are the contributing factor?

TABLE IV-15 COMPARISON OF PRIMARY SCHOOLS IN SELECTED REGIONS

FACTS	REGIONS				
	Mwanza 1996	Shinyanga 1995	Dodoma 1996	Iringa 1995	Mara 1995
Number of Schools	864	923	526	723	541
Total Enrolment	332,787	317,896	197,108	236,540	208,394
Number of Classrooms	3,930	1,622	2,561	4,987	2,576
Number of Teachers	7,421	5,697	4,975	6,391	5,546
Pupil/School	385	344	374	308	385
Pupil/Classroom	85	196	77	47	81
Pupil/Teacher Ratio	45	56	40	37	38

4.1.2 Secondary School Education

Table IV-16 compares the number of secondary schools in the selected few regions of Tanzania mainland in 1994. In this comparison it is observed that Mwanza region has a total of 34 secondary schools, 14 of which are public and 20 private secondary schools. In this comparison Kilimanjaro, Iringa and Arusha rank first, second and third respectively. Mwanza in this respect ranks fourth and Kigoma ranks last with 7 secondary schools. The number of private secondary schools in the region exceed those which are public i.e. 20 private and 14 public. Within Mwanza region the distribution of both public and private secondary schools is illustrated in Table IV-17. It is observed that Mwanza district has the highest number of 13 secondary schools, Geita ranks second in having 5

secondary schools. Missungwi district has the least number of 2 secondary schools.

TABLE IV-16: NUMBER OF SECONDARY SCHOOLS IN MWANZA REGION AS COMPARED TO NUMBERS IN SELECTED REGIONS OF TANZANIA - 1994

Region	No. of Public Sec. Schools	No. of Private Sec. Schools	Total	Rank
Mara	8	10	18	12
Kilimanjaro	15	62	77	1
Arusha	13	23	36	3
Mbeya	7	17	24	6
Kagera	9	23	32	5
Mwanza	14	20	34	4
Dar es Salaam	8	15	23	7
Dodoma	13	9	22	8
Kigoma	4	3	7	16
Morogoro	12	8	20	9
Mtwara	9	3	12	14
Pwani	8	3	11	15
Rukwa	11	9	20	10
Singida	5	9	14	13
Tabora	10	9	19	11
Iringa	10	32	42	2

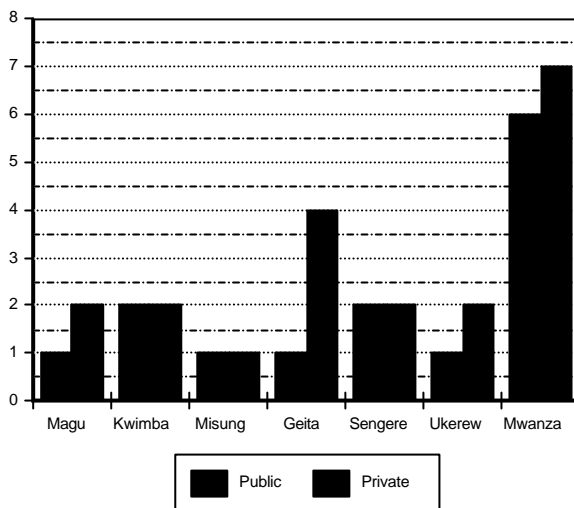
Source: Ministry of Education and Youth Development Report 1994

TABLE IV-17 DISTRIBUTION OF SECONDARY SCHOOLS BY DISTRICT, MWANZA REGION - 1967 TO 1996

District	1967			1985			1996		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Magu	-	-	-	-	-	-	1	2	3
Kwimba	-	-	-	-	-	-	2	2	4
Misungwi	-	-	-	-	-	-	1	1	2
Geita	-	-	-	-	1	1	1	4	5
Sengerema	-	-	-	1	-	1	2	2	4
Ukerewe	-	-	-	-	1	1	1	2	3
Mwanza	4	2	6	5	2	7	6	7	13
Total	4	2	6	6	4	10	14	20	34

Source: Regional Education Office Mwanza, Annual Reports 1967,1985 and 1996

Fig. 56: Distribution of Secondary Schools by District, 1996



It is observed in Table IV-18 that more boys than girls were selected to join Form I secondary schools during the years 1991-1996. There has been a general increase in the number of both boys and girls selected to join secondary schools. The number of students selected represents a very small percentage of the total number of candidates for Form I. During the years 1991-1996 the number of students selected for Form I has ranged from 4.5 per cent to a maximum of 6 percent of the total number of students who sat for the Std VII final examinations. In 1996 out of a total of 29,129 student candidates who sat for the National Std VII Examination only 1780 were selected to join Form I. This is 6% only. Table IV-19 gives the number of students from Mwanza region who were selected for Form I and assigned to join Public Secondary Schools outside the region. This means about 82 per cent of the students selected for Form I joined Public Secondary Schools within the region.

TABLE IV-18 PUPILS SELECTED FOR FORM I BY SEX AND YEAR, MWANZA REGION 1991-1996

YEAR	CANDIDATES	NUMBER SELECTED
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	Boys	Girls	Total	Boys	%	Girls	%	Total Number Selected	% Selected
1991	14,977	13,825	28,802	747	5%	557	4%	1,304	4.5%
1992	13,405	11,696	25,101	771	6%	543	5%	1,254	5%
1993	13,867	11,964	25,831	798	6%	623	5%	1,421	5.5%
1994	14,875	13,001	27,876	743	5%	630	5%	1,373	5%
1995	15,013	13,005	28,118	853	6%	790	6%	1,643	6%
1996	15,470	13,659	29,129	923	6%	857	6.3%	1,780	6%

Source: Regional Education Office Mwanza , Annual Report 1996

Fig. 57: Number of candidates in thousands for Form I by Sex and year

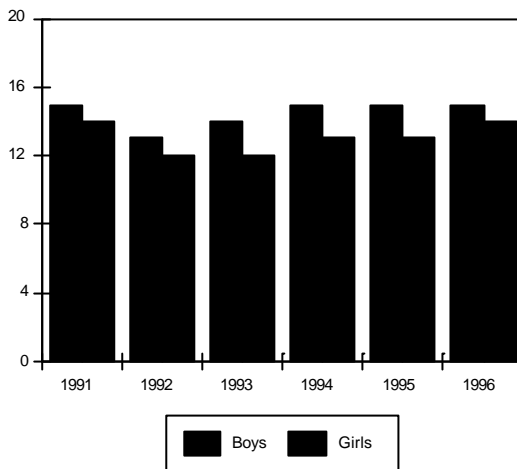


Fig. 58: Pupils selected for form I by sex and year, Mwanza region 1991 -1996

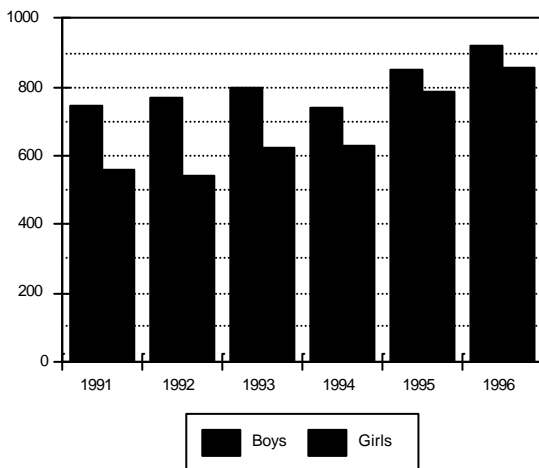


TABLE IV-19 NUMBER OF PUPILS FROM MWANZA REGION SELECTED TO JOIN FORM I IN DIFFERENT PUBLIC SCHOOLS IN TANZANIA, 1996

Name of School	Male	Female	Total
1. Tabora Boys Sec. School	25	-	25
2. Tabora Girls Sec. School	-	25	25
3. Moshi Sec. School	7	-	7
4. Tanga Sec. School	-	12	12
5. Musoma Sec. School	50	-	50
6. Ifunda Tech. School	14	-	14
7. Bagamoyo Sec. School	55	-	55
8. Maswa Sec. School	-	73	73
9. Tarime Sec. School	38	-	38
10. Milambo Sec. School	7	-	7
11. Pugu Sec. School	10	-	10
Total	206	110	316

Source: National Examination Results Pamphlet, 1996

4.1.3 Adult Education

Tanzania since the early years after independence embarked on illiteracy eradication by expanding primary and secondary education as well as placing emphasis on adult education programs. Table IV-20 compares mainland regions' literacy attainments and development from 1967 to 1988. It is observed from this table that the literacy level in Mwanza region had reached 57.3 per cent compared with 80.8 per cent for Kilimanjaro and Dar es Salaam at the time of 1988 Population Census. This level of literacy attainment places Mwanza region in the disappointingly 12th position nationwide. The most striking observation in Table IV-21 is that nationwide women's

literacy is lower than male literacy in all the regions both in Urban and Rural Areas. This is also true for Mwanza region.

TABLE IV-20 PERCENTAGE OF LITERACY FOR POPULATION AGED 10 YEARS AND ABOVE IN MWANZA REGION, COMPARED TO OTHER REGIONS IN LAST THREE CENSUS

Region	1967 Census	1978 Census	1988 Census	Rank
Kilimanjaro	56	74.1	80.8	1
Dar es Salaam	60	73.3	80.7	1
Ruvuma	41	66.3	70.5	2
Tanga	40	60.6	66.0	4
Morogoro	37	58.6	62.8	6
Mara	35	56.4	63.9	5
Iringa	31	54.0	68.3	3
Kagera	40	52.9	59.5	8
Mtwara	28	51.4	57.1	13
Dodoma	24	49.5	55.5	14
Mbeya	29	49.2	61.9	7
Rukwa	-	48.5	58.6	9
Lindi	-	48.4	53.8	16
Singida	24	46.7	57.4	11
Mwanza	25	44.3	57.3	12
Coast	26	44.0	51.1	17
Kigoma	19	43.7	55.1	15
Arusha	26	41.9	58.1	10
Tabora	27	40.5	50.5	18
Shinyanga	16	33.2	48.3	19

Source: 1988 Population Census (National Profile)

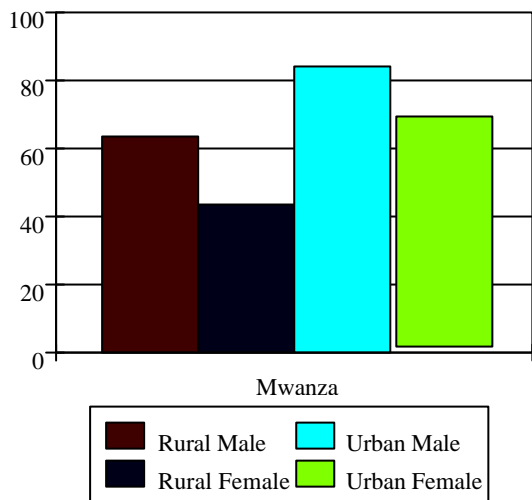
TABLE IV-21 LITERACY RATES FOR RURAL AND URBAN POPULATION OF 10 YEARS AND ABOVE IN MWANZA REGION COMPARED TO OTHER REGIONS IN TANZANIA - 1988

REGIONS	M A L E			FEMALE		
	Rural	Urban	Total	Rural	Urban	Total
Mbeya	69.9	87.5	73.3	48.4	70.4	58.5
Mara	73.7	88.0	75.3	53.7	71.5	55.6
Dodoma	61.5	85.4	64.3	45.1	73.7	48.2
Arusha	61.5	91.8	65.6	46.4	82.8	50.9
Kilimanjaro	84.5	90.3	85.5	75.7	83.6	76.9
Tanga	72.8	88.6	75.9	53.2	75.6	57.3
Morogoro	68.8	86.4	72.9	49.5	72.0	54.6
Coast	60.1	72.2	64.0	40.1	51.8	44.9
D'Salaam	68.4	90.0	87.9	48.0	77.7	74.6
Lindi	62.4	75.9	64.6	42.0	60.2	44.8
Mtwara	65.5	77.9	67.3	46.3	61.6	48.5
Ruvuma	77.7	87.6	78.7	61.4	75.7	63.3
Iringa	80.1	87.4	84.9	57.2	70.4	58.5
Mwanza	63.7	83.7	67.6	43.4	66.9	47.8
Kagera	68.0	84.4	69.0	49.7	72.4	50.9
Shinyanga	57.9	85.9	59.9	36.2	67.7	39.3
Singida	65.0	85.5	66.8	47.2	70.8	49.3

Tabora	50.1	85.2	60.5	36.7	67.8	41.6
Rukwa	69.1	84.3	71.3	43.9	66.4	47.3
Kigoma	65.1	83.1	67.4	43.1	62.7	45.5

Source: 1988 Population Census: National Profile

Fig. 59: Literacy rates for rural and urban population of 10 years and above in Mwanza region, 1988



Moreover, literacy levels are higher in urban areas than in rural areas, for both men and women. It is observed in Table IV-22 that Mwanza district in 1996 had the highest literacy level of 87.6 per cent, followed by Missungwi with 86.6 per cent. Sengerema ranked last in the region with 56 per cent literacy. The given data in Table IV-23 for the years 1993 and 1996 show that in all the region's districts there is an overall total decline of 15 per cent in the illiterate population. The decline is observed for both sexes. Geita had the biggest number of 40,820 illiterates which is about 28 per cent of the regional total number of illiterates.

**TABLE IV-22 LITERATE ADULT POPULATION BY DISTRICT,
MWANZA REGION 1996 (13 YEARS AND ABOVE)**

DISTRICT	NO. OF ADULT POPULATION			NO. OF LITERATE POPULATION			TOTAL %
	Male	Female	Total	Male	Female	Total	
Magu	95,454	99,311	194,765	73,705	79,868	153,573	79%
Kwimba	81,576	84,906	166,482	68,816	56,572	125,388	75.3%
Missungwi	61,511	64,021	125,532	47,111	61,559	108,670	86.6%
Geita	167,610	161,037	328,647	113,560	112,070	225,630	68.6%
Sengerema	96,820	96,434	193,254	52,868	55,401	108,269	56%
Ukerewe	54,171	56,381	110,552	43,941	40,514	84,455	76.4%
Mwanza	153,175	147,168	300,343	132,228	130,971	263,199	87.6%
Total	710,317	709,258	1,414,575	532,229	536,955	1,069,184	75%

Source: Regional Education Office Mwanza, Annual Report 1996

Fig. 60: Number of literacy adult population by district, 13 year and above, Mwanza region, 1996

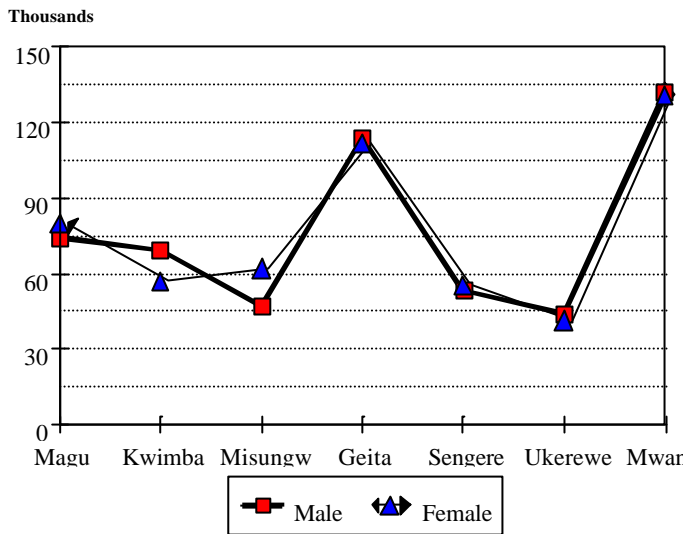


TABLE IV-23 ILLITERATE POPULATION IN MWANZA REGION BY DISTRICT 1993 AND 1996

District	POPULATION 1993			POPULATION 1996		
	Male	Female	Total	Male	Female	Total
Magu	13,308	22,917	36,225	11,767	17,522	29,289
Kwimba	12,578	18,424	31,002	12,581	16,566	29,147
Missungwi	-	-	-	3,812	6,474	10,286
Geita	18,108	26,215	44,323	15,258	25,562	40,820
Sengerema	15,232	22,566	37,798	6,763	14,877	21,640
Ukerewe	5,045	8,403	13,448	3,229	4,929	8,158
Mwanza	3,090	5,730	8,820	2,381	4,124	6,525
Total	67,361	104,255	171,616	55,791	90,054	145,865

Source: Regional Education Office Mwanza, Annual Report 1993 and 1996.

Fig. 61: Illiterate population by district and sex in Mwanza region, 1993

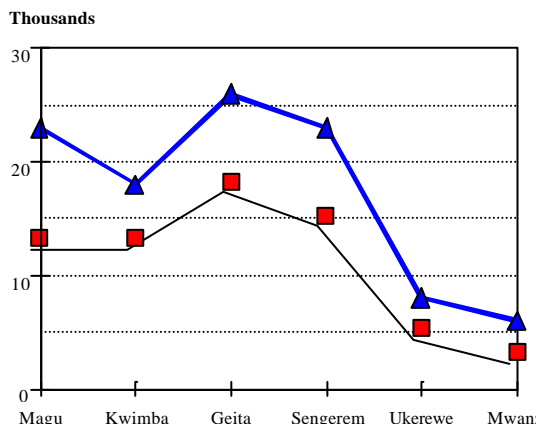
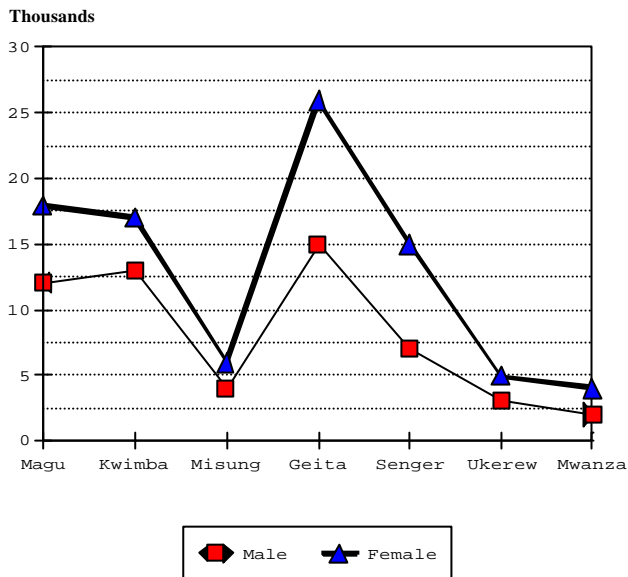


Fig. 62: Illiterate population by district and sex in Mwanza region, 1996



4.1.4 Vocational Training

Mwanza region has many young people. In fact almost half of the population in the region is under 15 years. According to the 1988 Population Census Regional Profile, 46 per cent of the population was between 0-14 years of age.

There are many primary school leavers who are not able to go to secondary school. In 1996, 15,470 boys had finalized their primary school education, out of this number, about 1000 or 6 per cent continued to government secondary schools. The same year, 13,659 girls finalized primary school education and 857 of them entered public secondary schools. The majority of primary school leavers, boys and girls (except for some few who could go

to private secondary school, vocational and other training institutions) entered the labour market.

The number of secondary school leavers is much smaller than that of primary schools. In 1996 in Mwanza region a total of 3,142 students (1820 boys and 1,322 girls) sat for their final secondary school exams. Most of them entered the labour market that year.

There is no sector expanding fast enough to absorb all these people entering the labour market. For the majority of them self-employment in the informal sector is the only alternative. There is therefore, great need to encourage the expansion of this sector and provide it with all the necessary assistance. This could be done by providing new skills and technology to the young people leaving both primary and secondary schools. Table IV-24 shows that there are only five vocational training centers in Mwanza region, one center each for Missungwi, Geita and Ukerewe districts. Mwanza district has two centers while Magu Sengerema and Kwimba have none.

TABLE IV-24 NUMBER OF VOCATIONAL TRAINING CENTERS BY DISTRICT, MWANZA REGION 1996

DISTRICT	NUMBER OF CENTERS
Magu	-
Kwimba	-
Misungwi	1
Geita	1
Sengerema	-
Ukerewe	1
Mwanza	2
Total	5

Source: Regional Education Officer, Mwanza 1997

Regional authorities, on behalf of the residents of the region would find it profitable to carry out a dialogue with NGO's. The purpose being to request NGO's to assist the authorities establish vocational training in primary schools with all seriousness. Education in secondary schools should be enabled to continue with studies in technical skills started earlier while in primary school. Hopefully by the time students complete Form IV they should have acquired adequate technical skills for self employment.

4.2 **HEALTH SECTOR**

4.2.1 **INTRODUCTION**

To the people of Mwanza region the provision of health services meets a crucial social need. The government delivery system is geared to Western medical practice. Fortunately or unfortunately this system is meeting only a part of this need. The gap between demand and supply is being filled by traditional medicine. Today, people in both rural and urban areas have recourse to either form of medicine or both.

Few governments, however, are ever comfortable with traditional medicine. The preference has always been for the cut and dried, well developed Western medicine approach. In pursuit of this the region has a fairly extensive system of such health facilities ranging from services by Western trained Traditional Birth Attendants and Primary Health Care Workers at village level, through dispensaries and MCH clinics, rural health centers and finally hospitals. A variety of trained professional and technical personnel service the system.

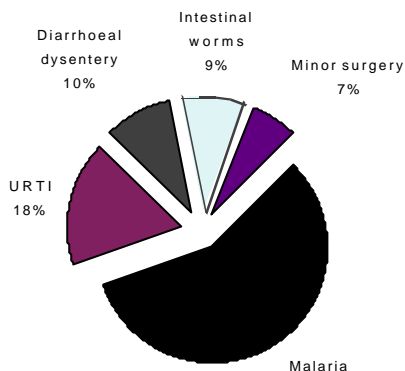
But before examining in detail this health delivery system, it is necessary to review the health problems facing the residents of Mwanza region. According to Health Ministry reports the most common causes of morbidity (sickness) are as shown in Table IV-25. By far the most common cause is malaria followed at a distance by upper respiratory tract infections. Diarrhoeal dysentery, intestinal worms and conditions leading to minor surgeries are also much in evidence.

TABLE IV-25 THE FIVE MOST COMMON CAUSES OF MORBIDITY IN MWANZA REGION 1996

DISEASE	OCCURRENCE	%
1. Malaria	194,253	45
2. URTI	60,086	14
3. Diarrhoeal dysentery	32,484	8
4. Intestinal worms	29,848	7
5. Minor surgery	23,106	5

Source: Regional Medical Office, Mwanza - 1997

Fig. 63: Distribution of the five most common causes of morbidity in Mwanza region, 1996



When it comes to death the seven most important contributors are listed in Table IV-26. This reveals that malaria still leads the list followed by anaemia, URTIs, and diarrhoeal diseases in that order.

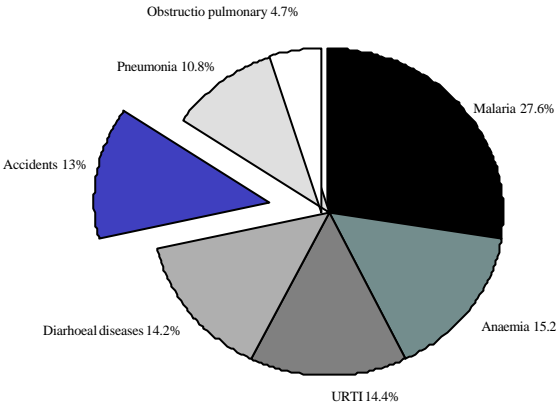
TABLE IV-26 THE SEVEN MOST COMMON REPORTED CAUSES OF DEATH IN MWANZA REGION 1995

DISEASE	NO. DEATHS REPORTED
Malaria	140
Anaemia	77
URT I	73
Diarrhoeal diseases	72
Accidents	66
Pneummonia	55
Obstruction pulmonary diseases	24

Total	508
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Source: Regional Medical Officer, Mwanza - 1997

Fig. 64: The seven most common reported causes of death in Mwanza region, 1995



The whole hierarchy of facilities from the village based primary health care worker to the regional consultant hospital, is geared mainly to combating these major causes of morbidity and death. Government run facilities are supplemented by the private sector which owns and runs similar facilities. Religious institutions are the most active of the private sector. It is envisaged that in the not too distant future the private sector will be the dominant force in health care delivery in the region.

4.2.1 **HEALTH INFRASTRUCTURE**

The current status on medical facilities is reflected by Table IV-27 which lists a total of 318 dispensaries, 116 of which are privately run. Of the 25 health centers three are private. Among the 12 hospitals 7 i.e. the majority are run and owned by the private sector.

The dispensary is the first health post in the district health referral system. It is headed by a Rural Medical Aid (an assistant clinical officer) and when working well can handle 90% of the problems requiring medical help in the community it covers.

TABLE IV-27 NUMBER OF PUBLIC AND PRIVATE HOSPITALS, HEALTH CENTERS AND DISPENSARIES BY DISTRICT, MWANZA REGION - 1995

DISTRICT	HOSPITALS		HEALTH CENTER		DISPENSARIES	
	Public	Private	Public	Private	Public	Private
Magu	1	1	4	0	37	2
Kwimba	1	1	2	0	27	2
Misungwi	0	1	3	0	29	2
Geita	1	0	5	0	37	18
Sengerema	0	1	5	1	35	8
Ukerewe	1	0	2	1	22	8
Mwanza	1	3	1	1	15	76
Total	5	7	22	3	202	116

Source: Regional Medical Officer Mwanza , Annual Report, 1996

The Mwanza region population of 2,307,636 (1995 estimates) is served by the 318 dispensaries and 245 MCH clinics, the majority of which are government owned. From Table IV-28 one can gather that they are unevenly distributed with average coverage in any one district ranging from 5,047 people per dispensary for Mwanza district to 10,646 for Geita. The maldistribution in the Geita, Kwimba and Ukerewe districts is more evident on the ground. Because of long distances between villages there are dispensaries which serve as few as 2,000 people. In Ukerewe district isolated islands are in the same situation. Theoretically the catchment area of a dispensary is a circle with a radius of 8 kilometers. There is a significant portion of the region's population

who are outside such catchment areas and thus in shadow, resorting to dispensary help only in emergencies and at considerable opportunity cost and inconvenience.

A district by district comparison reveals that Mwanza district is the best covered at 2,953 people per dispensary. Geita is the worst covered at 10,646 people per dispensary.

TABLE IV-28 POPULATION COVERED BY DISPENSARIES IN EACH DISTRICT OF MWANZA REGION 1995

DISTRICT	DISPENSARY			Number of MCH Clinics	Population Estimate 1995	Population per Dispensary
	Public	Private	Total			
Magu	37	2	39	43	358,200	9,185
Kwimba	27	2	29	31	292,343	10,080
Missungwi	29	2	31	35	237,397	7,658
Geita	37	18	55	45	585,545	10,646
Sengerema	35	8	43	38	361,238	8,401
Ukerewe	22	8	30	28	204,179	6,806
Mwanza	15	76	91	25	268,734	2,953
Total	202	116	318	245	2,307,636	7,257

Source: Annual Report, Regional Medical Officer, Mwanza 1995

The regional distribution of rural health centers is even more uneven (See Table IV-29), Kwimba and Mwanza districts are the most disadvantaged. Sengerema and Ukerewe are the most favored. One rural health center in Kwimba and Mwanza covers 146,175 and 134,367 people respectively. Unlike Kwimba,

Mwanza makes up for this deficit by having the best coverage with respect to dispensaries.

TABLE IV-29 POPULATION COVERED BY RURAL HEALTH CENTERS IN EACH DISTRICT, MWANZA REGION - 1995

DISTRICT	NO. OF RHC			Population per RHC
	Publi	Priva	Total	
Magu	4	0	4	89,550
Kwimba	2	0	2	146,172
Misungwi	3	0	3	79,132
Geita	5	0	5	117,109
Sengerema	5	1	6	60,206
Ukerewe	2	1	3	68,060
Mwanza	1	1	2	134,367
Total	22	3	25	92,305

Source: Annual Report, Regional Medical Officer, Mwanza - 1995

With regard to hospital infrastructure of the total of 12 hospitals, distribution runs from a high of one to 585,545 people in Geita district to a low of one to 67,184 people for Mwanza district. In terms of hospital beds the distribution varies between one bed to 922 people for Kwimba and 3,660 people to one bed in the worst case of Geita. Despite being very badly covered by dispensaries and rural health centers, when it comes to hospital beds Kwimba district takes first place. (See Table IV-30), Mwanza district has the best population per doctor ratio at 22,395 and Misungwi worst at 237,397.

TABLE IV-30 DISTRIBUTION OF HOSPITAL BEDS AND DOCTORS, BY DISTRICT MWANZA REGION, 1995.

DISTRICT	NUMBER OF HOSPITALS			No. of Beds	Pop. per Hospital Bed	No. of Doctors	Pop. per Doctors	Pop. per Hospital
	Public	Private	Total					
Magu	1	1	2	181	1,979	2	179,100	179,100
Kwimba	1	1	2	317	922	2	146,172	146,172
Misungwi	0	1	1	142	1,672	1	237,397	237,397
Geita	1	0	1	160	3,660	3	195,182	585,545
Sengerem	0	1	1	244	1,480	4	90,310	361,238
Ukerewe	1	0	1	107	1,908	3	68,060	204,179
Mwanza	1	3	4	138	1,947	12	22,395	67,184
Total	5	7	12	1,289	1,790	27	85,468	192,303

Source: Annual Report, Regional Medical Officer, Mwanza - 1995

4.2.2 MANPOWER REQUIREMENTS

The shortage of trained manpower for the health sector exists in many regions of Tanzania . Mwanza is no exception as Table IV-31 shows. Every category is grossly understaffed. Increase in productivity through the use of such aids like transport, appropriate equipment, further training etc.. could be the only answer in the short term to improved service delivery.

**TABLE IV-31 MANPOWER REQUIREMENTS OF MWANZA REGION
HEALTH SERVICES 1996**

Staff Category	Requirements	Available	Shortfall
Med. Officers	30	11	19
Pharmacists	6	1	5
Lab. Technicians	8	4	4
X-ray Technicians	6	1	5
Nurses Grade A	120	96	24
Nurses Grade B	360	135	225
Dentists	3	1	2
Med. Specialists	4	-	4
Asst. Med. Officer	23	15	8
Asst. Dent. Officer	8	2	6

Source: Annual Report, Regional Medical Officer, Mwanza - 1996

4.2.3 LIFE EXPECTANCY AT BIRTH

The life expectancy at birth for Mwanza males and females improved between 1978 and 1988 Censuses. For males this improved from 44 years to 46 and for females from 48 years to 50 years. However, the regions overall ranking dropped slightly. Table IV-32 shows the picture. The region is somewhere in the middle nation wise.

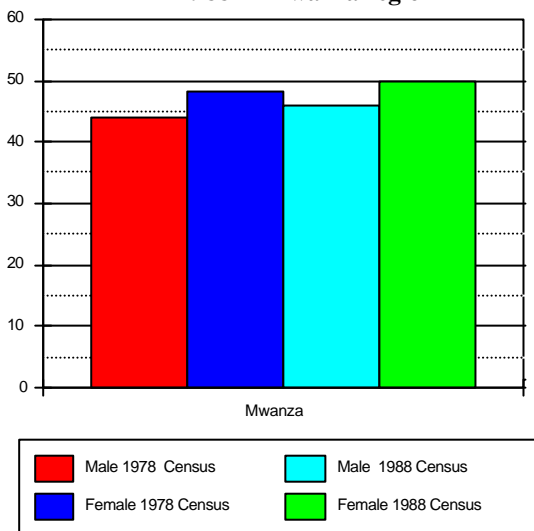
TABLE IV-32 LIFE EXPECTANCY AT BIRTH BY SEX, 1978 AND 1988 IN MWANZA REGION AS COMPARED TO OTHER REGIONS IN THE COUNTRY (YEARS)

REGION	1978 CENSUS		1988 CENSUS	
	Male	Female	Male	Female
Arusha	50	57	57	58
Coast	47	48	46	51
Dar es Salaam	50	50	50	50
Dodoma	45	46	45	47
Iringa	41	45	44	47
Kagera	45	45	44	45
Kigoma	40	48	47	49
Kilimanjaro	58	59	57	62
Lindi	42	47	46	48
Mara	44	47	46	48
Mbeya	41	47	45	48
Morogoro	44	46	45	48
Mtwara	40	46	45	48
Mwanza	44	48	46	50
Rukwa	40	45	44	48
Ruvuma	43	49	48	51
Shinyanga	42	50	48	51
Singida	44	55	54	55
Tabora	44	53	53	54
Tanga	49	49	48	51

Mainland	44	50	49	51
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Source: Health Statistics Abstract 1994

Fig. 65: Life expectancy at birth by sex, 1978 and 1988 in Mwanza region



4.2.4 **INFANT AND UNDER FIVE MORTALITY:**

Malaria, anaemia, URTIS, diarrhoea, immunizable 'early childhood' diseases and malnutrition play a decisive role on the survival of infants and under fives. This is reflected in the level of infant and under five mortality rates. Table IV-33 reveals that between 1978 and 1995 both these rates dropped. Infant mortality fell between 1978 and 1985 to 115 from 139. In 1995 it fell further to 95 per 1000. The under five mortality rate fell correspondingly between these years from 233 to 192 and further to 157. Relative to other regions Mwanza's performance improved its ranking even though only slightly. It is still middling. Many factors contributed toward this decline; among them an increasingly successful child immunization program, deliberate steps taken toward controlling severe malnutrition in children, and a moderately good dispensary to hospital service.

There is a difference in mortality rates between urban and rural areas. For example although the 1988 IMR for the region was 115 it was 119 in rural areas and 97 in urban. For that year the U5MR was 192. In rural areas the U5MR was 200 compared to 158 in urban areas. Thus children in rural areas carry a greater risk of death (Table IV-34).

The other difference is between the sexes. In 1988 the IMR for boys was 122 and only 108 for girls. The U5MR was 204 while that for girls was 178. Boys are more at risk (Table IV-35).

**TABLE IV-33 INFANT AND UNDER FIVES MORTALITY RATES
FOR MWANZA REGION AS COMPARED TO OTHER
REGIONS IN TANZANIA: 1978, 1988 AND**

1995

REGION	I M R / 1000			U5MR/1000		
	1978	198	1995	1978	1988	1995
Arusha	108	75	52	179	119	78
Coast	121	113	105	204	189	174
Dar es Salaam	108	105	102	179	173	168
Dodoma	133	132	130	225	222	220
Iringa	152	130	111	257	220	187
Kagera	133	130	127	225	219	212
Kigoma	163	115	81	269	192	137
Kilimanjaro	76	67	59	119	104	90
Lindi	151	140	129	255	236	218
Mara	140	125	112	236	211	189
Mbeya	161	124	96	267	209	163
Morogoro	140	125	112	236	211	189
Mtwara	161	138	119	267	233	202
Mwanza	139	115	95	233	192	157
Rukwa	170	131	101	283	221	172
Ruvuma	145	113	88	245	188	143
Shinyanga	150	110	81	252	183	131
Singida	137	96	67	231	157	106
Tabora	140	101	73	236	166	116
Tanga	112	106	100	187	176	166

Source: - Health Statistics Abstract, 1996
 - 1988 Population Census

**TABLE IV-34 INFANT AND UNDER FIVE MORTALITY RATES
 BY REGION, RURAL AND URBAN, 1988**

REGION	I M R		U5MR	
	Rural	Urba	Rural	Urban
Arusha	76	72	120	114
Coast	115	104	193	172
Dar es Salaam	121	103	203	169
Dodoma	136	94	230	154
Iringa	130	135	219	229
Kagera	130	116	220	193
Kigoma	116	109	194	181
Kilimanjaro	66	73	102	115
Lindi	143	121	241	204
Mara	128	101	216	116
Mbeya	128	107	216	177
Morogoro	134	94	226	153
Mtwara	143	108	241	180
Mwanza	119	97	200	158
Rukwa	134	112	227	186
Ruvuma	114	107	190	177
Shinyanga	112	92	186	150
Singida	99	81	161	129
Tabora	101	103	165	169

Tanga	109	89	182	144
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Source: 1988 Population Census

**TABLE IV-35 IMR AND USMR IN TANZANIA MAINLAND
BY REGION FOR 1988**

REGION	IMR		USMR	
	Male	Female	Male	Female
Arusha	79	82	126	131
Coast	118	109	199	180
Dar es Salaam	109	100	181	165
Dodoma	136	127	230	114
Iringa	137	124	231	209
Kagera	133	127	224	213
Kigoma	119	111	200	184
Kilimanjaro	67	67	104	104
Lindi	140	139	237	235
Mara	128	122	216	205
Mbeya	130	118	220	197
Morogoro	133	118	224	197
Mtwara	141	134	238	227
Mwanza	122	108	204	178
Rukwa	137	125	232	211
Ruvuma	115	110	193	183
Shinyanga	114	106	191	175
Singida	98	94	161	152
Tabora	103	99	169	163
Tanga	110	102	183	168

Source: 1988 Population Census

4.2.5 MATERNAL MORTALITY

The death of women while pregnant or within 42 days of the termination of pregnancy defines maternal mortality. The rate is calculated in terms of per 100,000 live births. Table IV-36 shows how Mwanza region compares to the rest of the country in this regard. The table shows that if the number one region is the one with the lowest mortality figure then Mwanza ranking is middling. Its placing varies between number 11 and number 17.

**TABLE IV-36 MATERNAL MORTALITY RATE IN TANZANIA
MAINLAND BY REGION FOR 1992, 1993, 1994**

REGION	1992	1993	1994
Arusha	102	158	114
Coast	209	111	70
Dar es Salaam	220	398	237
Dodoma	197	214	208
Iringa	311	321	276
Kagera	304	343	190
Kigoma	144	155	105
Kilimanjaro	126	46	107
Lindi	262	289	193
Mara	67	59	106
Mbeya	67	361	436
Morogoro	289	172	190
Mtwara	264	212	161
Mwanza	221	186	266
Rukwa	172	294	243
Ruvuma	225	189	186
Shinyanga	143	188	199
Singida	242	171	238
Tabora	151	185	130
Tanga	255	172	220

4.2.6 MALNUTRITION

Before the introduction of the Child Survival, Protection and Development Program (CSPD) in the region, malnutrition in young children was rarely recognized as a problem of the imbalance in food intake. Mothers had to be educated to awareness of the problem. The major cause of malnutrition in the region is food supply inadequacy. This in turn is caused by the dependence of the region's farmers on rain fed subsistence agriculture. A food production system which is subject to the vagaries of the weather.

Rainfall in the region tends to be unpredictable, uneven and often inadequate. The introduction of cash crops is of little assistance since, a bad year more often than not affects adversely the production of cash crops as well. Close spacing of children and ignorance of proper feeding practices for infants and under fives are contributory factors.

Before CSPD the level of severe malnutrition in the region was 4.6% among under fives. The program started in 1992. By 1996 severe malnutrition was reduced to 1.1%. According to Table IV-37 the level of severe malnutrition in the region is at par with the neighboring regions of Mara and Shinyanga, both before CSPD and for 1996.

TABLE IV-37 COMPARISON OF SEVERE MALNUTRITION LEVELS IN NEIGHBORING REGIONS

REGION	BEFORE CSPD	YEAR CSPD STARTED	1996
Mwanza	4.6	1992	1.1
Shinyanga	5.2	1985	1.3

Mara	6.4	1989	1.1
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4.2.7 IMMUNIZATION OF CHILDREN

The coming of CSPD to the region highlighted the importance of immunization for children. EPI, a part of CSPD, provided the resources for an organized effort at reaching complete coverage (100%) by 1999. From Table IV-38 one can discern the upward trend in coverage for the region as a whole. Coverage for infants rose from 84% to 97% in 1994 although this fell slightly in 1995. That for under fives increased from 68% steadily to a high of 77% in 1995. The trend of somehow lower figures in Geita district is a reflection of great distances between many MCH clinics. Distance is a barrier.

TABLE IV-38 IMMUNIZATION COVERAGE (%) FOR CHILDREN BY DISTRICT, MWANZA REGION 1992 - 1995

DISTRICT	1992		1993		1994		1995	
	Under 1 Year	Under 5 Years	Under 1 Year	Under 5 Years	Under 1 Year	Under 5 Years	Under 1 Year	Under 5
Magu	54.0	44	88.0	67.6	95.4	69.9	86	71.0
Kwimba	90.8	89	80.0	56.0	97.4	76.6	88	86.0
Missungwi	100	93.9	89.0	38.0	98.3	55.0	99	80.0
Geita	88.5	71	71.0	76.0	99.8	78.8	76.0	72.5
Sengerema	92.0	88	76.0	73.0	95.4	87.1	88	88.0
Ukerewe	60.0	76	86.4	70.2	99.8	71.5	88	64.0
Mwanza	98.7	69	93.3	76.2	94.3	78.8	95	79.0
Total	84.0	67.9	81.9	67.3	97.3	73.4	87	77.0

Source: Annual Report, Regional Medical Officer - Mwanza, 1995

Fig. 66: Immunization coverage (%) for children by district, Mwanza region, 1992

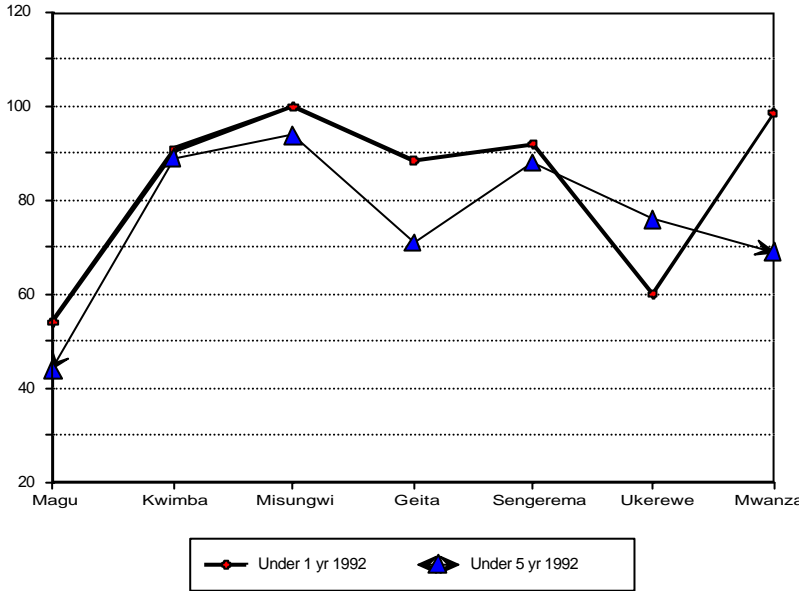


Fig. 67: Immunization coverage (%) for children by district, Mwanza region, 1993

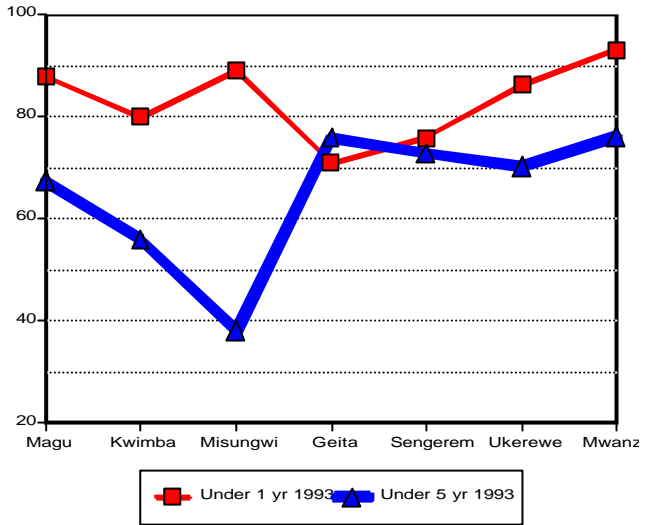


Fig. 68: Immunization coverage (%) for children by district, Mwanza region, 1994

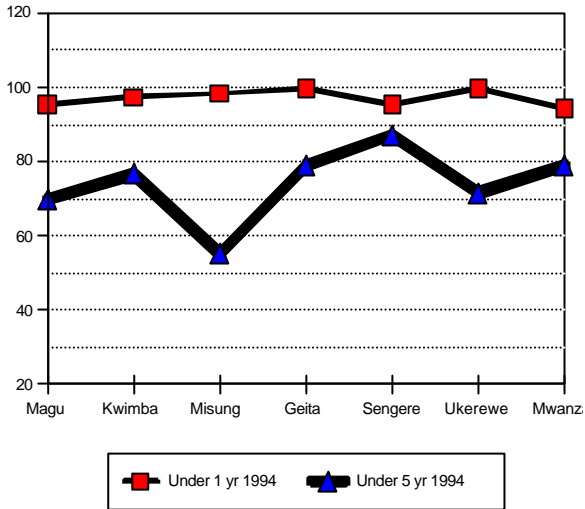
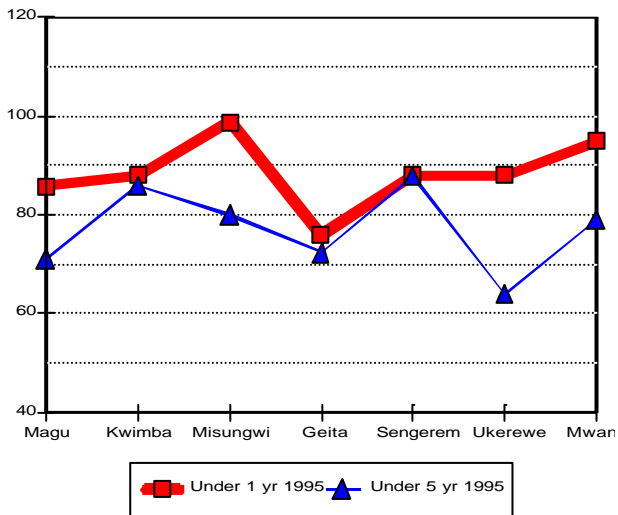


Fig. 69: Immunization coverage (%) for children by district, Mwanza region, 1995



4.2.8 **AIDS**

AIDS is both a social and economic problem for the region. In order to meet the social and economic need to come to grips with this disaster situation CSPD has concentrated an AIDS control training. AMREF on the other hand runs a high profile program involving:

- AIDS research in chemotherapy
- AIDS control including the distribution of condoms
- Special training efforts to cover AIDS control among Highway Truck Drivers.
- Working with various religions agencies in the care of HIV and AIDS victims.

TANESA of Netherlands funds the training of high risk groups like bar maids and guest house hostesses in AIDS control. This training is also extended to usually inaccessible populations of fishermen in the districts of Mwanza and Magu. It also initiated health care posts for the treatment of STDS. Sexually Transmitted Diseases always increase the risk of HIV infection. Other actors in this field are POFLEP, the Tanzania AIDS Control Project and HESAWA.

4.2.9 **SANITATION**

The major thrust in this area is the popularization and construction of low cost toilets which for most residents mean pit latrines. Some cultural resistance is met where one pit latrine is expected to serve the whole family. Health education has proved important in this regard. Other problems are technical, including the tendency

for pit walls to collapse in certain soil types. In cooperation with households HESAWA was instrumental in the construction of 560 toilets out of 3,485 targeted. This is 16%. Households were slow in responding. HESAWA also funded a household survey on toilets coverage. Of the total of 323,853 households or "kayas" in the region 85.9% of them or 278,337 households were sampled in 1994. Of this number 58.9% were found to have latrines in working order, 26.3% households had toilets which were either abandoned or because of disrepair were not in regular use. Latrines just completed were of the order of 8.7%. Lastly 5.7% of the Kaya had no latrine. Therefore 67.6% households are covered with toilet facilities. This is some 218,925 latrines. (Table IV-39).

TABLE IV-39 THE DISTRIBUTION OF TOILET FACILITIES BY DISTRICT, MWANZA REGION, 1994

DISTRICT	Total Households	Sample Households	%	Households with clean Toilets	%	H/holds with new Toilets	%	H/holds with bad Toilets	%	H/holds with no Toilets	%
Magu	80,880	60,886	75.0	34,511	56.6	3,811	6.2	18,250	30.0	8,822	14.0
Kwimba/Misungwi	63,876	56,750	89.0	26,462	56.0	3,275	7.0	16,740	35.0	4,178	9.0
Geita	74,880	72,417	96.7	46,351	64.0	5,656	7.8	20,410	28.0	0	0
Sengerema	36,870	36,870	100	24,890	67.4	3,875	10.5	7,926	21.4	1,05	2.8
Ukerewe	31,429	28,700	91.0	17,150	59.7	6,513	22.6	5,037	17.5	0	0
Mwanza	35,918	22,714	63.0	14,655	64.5	1,281	5.6	4,869	21.0	1,909	9.0
Total	323,853	278,337	85.9	164,019	58.9	24,411	8.7	73,232	26.3	15,959	5.7

Source: Rolling Plan and Forward Budget 1996/97 - 1998/99 and Annual Recurrent/Development Budget for 1996/97, Mwanza Region

4.2.10 OTHER HEALTH DEVELOPMENT PROGRAMS

a) **WAVI and TBA Training**

HESAWA and CSPD cooperate with the Ministry of Health in various other activities. The most visible of these are the training of primary health care workers (WAVI) and Traditional Birth Attendants (TBA). WAVI training aims at providing two WAVIs for every one of the 682 villages in the region. Of 1996, 898 WAVIs had been trained. This is 64% of the target. However, the drop-out rate was 18%, so effectively only 54% of the target had been reached. Training continues.

The justification for TBA training is that only 52% of all births in the region take place in hospitals and clinics. The remaining are assisted by TBAs at home. A survey identified 902 TBAs. of this number 489 or 54% had been trained by 1996. Others are to follow. The training aims at adapting TBAs to Western medical practices.

b) **Contributing toward health care costs**

In the spirit of self reliance and a realization that the government is incapable of providing free health care, the public are now required to contribute toward the costs of their treatment. Areas selected for contribution are a flat rate fee for:

- doctor's consultation
- drugs prescribed
- gate admission for vehicles, motor bikes and bicycles.

In 1995 some shs.30 million was realized this way. Funds so collected are supposed to go towards improvement of health facilities and the purchase of drugs. These contributions meet only a part of the cost of medical care.

4.3 WATER SECTOR

4.3.1 INTRODUCTION

The overall water sector objective is to make available safe, adequate and potable water by 2002 to all within 400 meters of any household. Although life without water is nearly impossible, life with unsafe water is also very risky. Water borne diseases such as dysentery and cholera can be life threatening. Both these diseases are endemic in the region. Quantity and quality are equally important. Despite the dominance of Lake Victoria areas of the region away from its shores depend for their water on rainfall. Shallow wells, springs, rivers and dams have to be replenished annually by rains, if they have to sustain production. But the rains are seasonal. The tendency, therefore, is for many water sources to be seasonal in volume. Towards the end of the dry season water reserves are at their lowest or non existent. Thus walks in search of water become longer and competition between livestock and humans for the remaining sources lowers the quality of water. At this time of year the pollution of dams, water pools and rivers by livestock increases dramatically. The polluted sources are normally those which are unprotected.

4.3.2 RURAL WATER SUPPLIES

District	Population 1995 Estimate	Population served with clean Water	Number of Villages	Villages served with clean Water	% of Villages with clean Water	% of Population with clean Water
Magu	328,785	183,527	116	110	94.8	55.8
Kwimba	273,515	123,082	110	89	80.9	45.0
Misungu	220,886	99,351	78	43	55.1	45.0
Geita	561,944	189,932	163	120	73.6	33.8
Sengerema	321,535	122,949	124	96	77.4	38.2
Ukerewe	190,078	77,234	74	42	56.8	40.6
Mwanza	56,434	28,171	17	4	23.5	49.9
Total	1,953,177	824,246	682	504	73.9	42.2

Source: Mwanza Regional Water Engineer Annual Report 1995.
Mkakati wa Maendeleo Mkoani Mwanza 1996-2001

4.3.3 URBAN WATER SUPPLIES

The region has seven major urban population centers which workout at one center per district. Water in the towns is expected to satisfy the needs of the human population and of industries. Urban people tend to use more water per capita than people in rural areas. They are under greater pressure to keep the environment clean. They also live more lavish life styles.

Donors are relatively few in the urban water sector compared to rural areas. Currently, the only donor is the E.U., which is working in the Mwanza municipality.

The coverage of clean water in the seven major towns in the region is given in Table IV-41. While the regional urban coverage is 53%, Nansio at 63% followed by Ngudu 57% are the best served. Sengerema, at 42% has the worst coverage in the region.

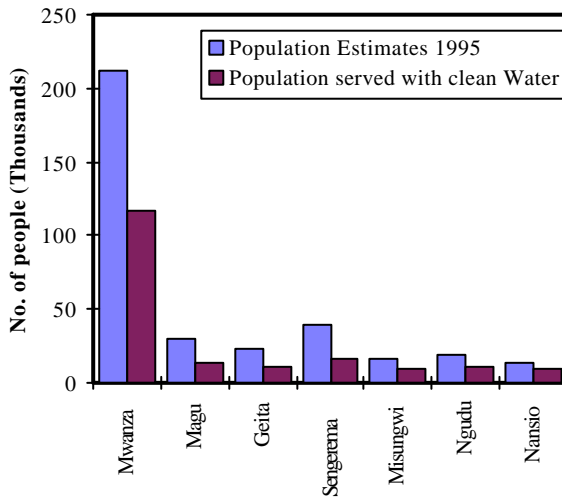
TABLE IV-41 DISTRIBUTION AND COVERAGE WITH CLEAN WATER SUPPLIES IN THE SEVEN MAJOR URBAN

**CENTERS MWANZA REGION, 1995 (EXCLUDES
MINOR URBAN SETTLEMENTS)**

Town	Population Estimates 1995	Population served with clean Water	% of Population served with clean Water
Mwanza	212,300	116,765	55
Magu	29,415	14,119	48
Geita	23,601	10,620	45
Sengerema	39,703	16,675	42
Misungwi	16,511	9,080	55
Ngudu	18,828	10,732	57
Nansio	14,101	8,883	63
Total	354,459	186,874	53

Source: Mkakati wa Maendeleo Mkoani Mwanza 1996-2001

Fig. 70: Distribution and coverage with clean water supplies in the seven major urban centers, Mwanza Region, 1995 (excludes minor urban settlements)



4.3.4 OVERALL WATER SUPPLY SITUATION

While Table IV-42 shows the average coverage for the combined rural and urban population, Table IV-43 compares the coverage of the two. In the region, Geita comes out as worst. Magu district closely followed by Mwanza is the most advantaged. With the exception of Mwanza every district's combined average shows very little shift from the rural coverage figure. This shows the importance of concentrating in these districts to providing water to rural area if the overall average for a district is to be raised. Greater effort should go where most people are i.e. rural areas. The reverse is true of Mwanza district which is predominantly an urban area.

TABLE IV-42 POPULATION SERVED WITH CLEAN WATER BY DISTRICT, MWANZA REGION, 1995

District	Population Estimates 1995	Population Served with Clean Water			% Population served with clean water
		Rural	Urban	Total	
Magu	358,200	185,527	14,119	197,646	55
Kwimba	292,343	123,082	10,732	133,814	46
Misungwi	237,397	99,351	9,080	108,431	46
Geita	585,545	189,932	10,620	200,552	34
Sengerema	361,238	122,949	16,675	139,624	39
Ukerewe	204,179	77,234	8,883	86,117	42
Mwanza	268,734	28,171	116,765	144,936	54
Total	2,307,636	824,246	186,874	1,011,120	44

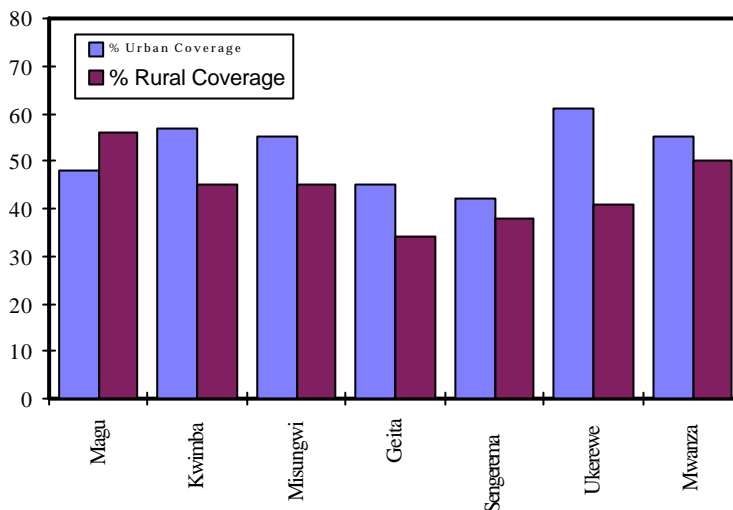
Source: Planning Commission data compiled from Mkakati wa Maendeleo Mkoani Mwanza 1996-2001

TABLE IV-43 COMPARISON OF COVERAGE WITH CLEAN WATER BETWEEN URBAN AND RURAL AREAS IN THE DISTRICTS OF MWANZA REGION, 1995

District	% Urban Coverage	% Rural Coverage	% Average Coverage
Magu	48	56	55
Kwimba	57	45	46
Misungwi	55	45	46
Geita	45	34	34
Sengerema	42	38	39
Ukerewe	61	41	42

Mwanza	55	50	54
Total	53	42	44

Fig. 71: COMPARISON OF COVERAGE WITH CLEAN WATER BETWEEN URBAN AND RURAL AREAS IN THE DISTRICTS OF MWANZA REGION, 1995



The choice of technology in supplying the water needs is an important factor. For Mwanza region the emphasis in rural areas has been on low cost and easy to maintain water supply facilities. Urban areas lend themselves to the more sophisticated gravity fed, piped water systems. The proximity to the lake has also been a deciding factor. Topography has been exploited in the choice of sites for dams and wells. Natural springs have been taken advantage of. Table IV-44 reflects this variation in technology. At 1,589, shallow wells are the most numerous source in use, reflecting the fact that they are the most cost effective. The table does not include water schemes out of working order.

TABLE IV-44 TYPE AND NUMBER OF WATER SOURCES BY DISTRICT, MWANZA REGION 1995

District	Piped	Water harvest tanks	WELLS			Dams	% Coverage
			Deep	Shallow	Traditional		
Ukerewe	9	-	-	136	-	-	42
Mwanza	7	4	24	190	-	5	54
Magu	13	16	20	510	113	23	55
Kwimba	4	1	-	285	21	5	46
Misungwi	11	-	3	208	7	1	46
Sengerema	10	4	4	121	-	6	39
Geita	7	-	-	139	5	7	34
Total	61	25	51	1,589	146	47	44

Source: Mkakati wa Maendeleo Mkoani Mwanza 1996-2001

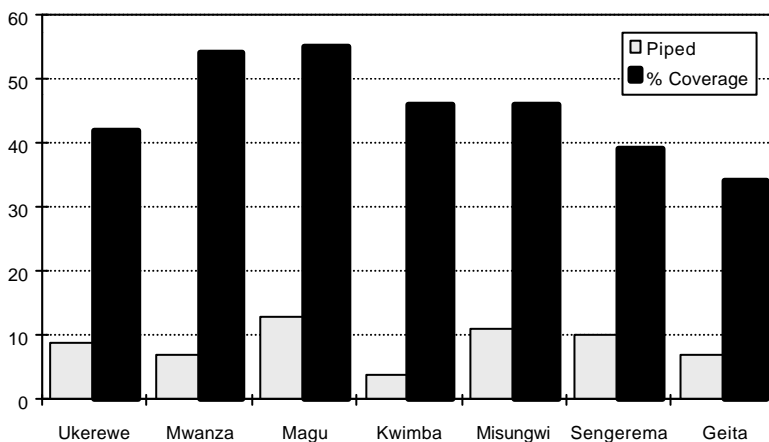
4.3.5 ADMINISTRATION OF WATER SUPPLY ACILITIES

Water supply schemes in rural areas, after completion are normally handed over to village governments to run and maintain. Urban water schemes are generally the responsibility of District Councils concerned. The problems that these governments face are; ageing of pipes and equipment and an insufficient budget to run and maintain the works. In an effort to solve these problems the government has established water committees in villages to oversee the management of own water facilities. An attempt is being made to introduce adequate and selected user charges. The contributions are expected to go into bank accounts to be managed by the water committees for the purchase of fuels, spares etc...

4.3.6 OTHER RELATED ISSUES

The Tanzania Home Economics Association (TAHEA) while working in the region has come out with the novel idea of using powder from seeds of the Moringa stenopetala tree to clean water. According to experiences in Sudan this powder when put in dirty water settles sediments to the bottom leaving the water clear. This could be an appropriate low cost method of treating water. Research done in the UK show that such treated water is safe for humans. The planting of this tree throughout the region could have an impact on the potability of water, especially in rural areas.

Fig. 72: Number and percentage coverage of water sources by district, Mwanza Region, 1995



SECTION V

5.0 OTHER DEVELOPMENT ISSUES

5.1 WOMEN DEVELOPMENT

The proportion of women to men shows a departure from the usual Tanzania pattern. Women in Mwanza region only marginally outnumber men. For all intents and purposes the ratio is 50:50. Still, this proves that women are numerically a very important segment of the regional community. In rural areas where 82% of women live, the importance of women as producers of wealth is out of proportion to their number. Women toil in fields, homes, in livestock keeping, fuel and water search to an extent men cannot match. This is in addition to their traditional role in child bearing and rearing

Despite their economic importance, women as a group are more vulnerable to health risks because of gender. They are also subject to social and economic inequalities. Maternal mortality in the region stands at a high rate of 266-deaths per 100,000 in 1994.

Early marriages, comparative illiteracy and outdated discriminatory customs all contribute to the erosion of women rights. This leads to a situation whereby although woman are the major producers of rural income, the majority beneficiaries of this wealth are men. To increase their vulnerability women also tend to bear the blunt of any disaster such as famine, AIDS and similar social upheavals.

Given the dual problem of illiteracy and ignorance especially among rural women, their change in status for the better, will be very slow to come about, if these women are left to their own initiative. Government, NGOs and committed individuals are supplying the catalyst to help women in both rural and urban areas bring about equality and equity with men.

The formation of women groups and women oriented organizations has started showing results. These groups are providing the fora on which to launch women empowerment, income generation and awareness of the in-equalities. In the long run society has to accord women their rightful role as independent and equal decision makers.

Table V.1 puts the number of income generation groups at 149 which is one group per 6,300 women. Members in these groups are a mere 2,481 or 0.52% of the population of women in the region. This is still too low. Nevertheless, it is a start in the right direction. Ukerewe district has the largest proportion of women members in the district at 1.20% while Geita is lowest at 0.08%. The population of women concerned are those in the economically active group which in the rural areas are those aged 15 - 64.

TABLE V-1 NUMBER OF WOMEN INCOME GENERATION GROUPS AND NUMBER OF MEMBERS, MWANZA REGION, 1996

District	Number of Women Groups	Total Number of Members	Percentage of Women who are Members
Magu	23	324	0.40
Kwimba	42	710	0.64
Misungwi	-	-	-
Geita	8	95	0.08
Sengerema	18	311	0.40
Ukerewe	30	533	1.20

Mwanza	28	508	0.94
Total	149	2,481	0.52

Source: Mwanza Region Office Community Development Dept. 1997

Fig. 72: Number of women income generation groups and number of members, Mwanza Region, 1996

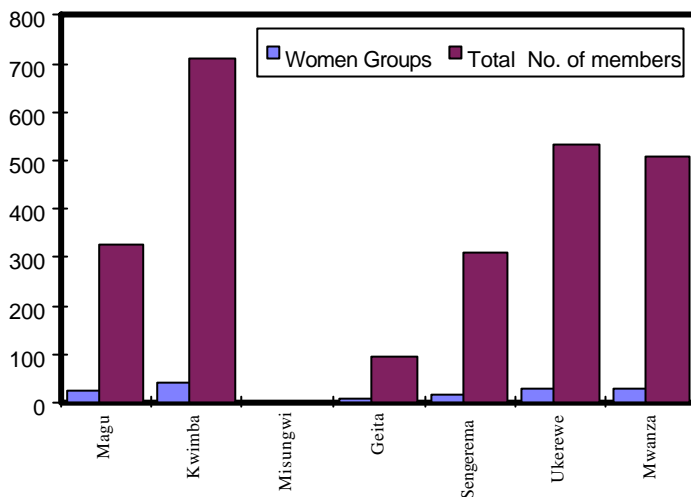


Table V.2 is an analysis of the activities these women groups are engaged in. Tailoring which is a favorite with urban Mwanza heads the list at 43 groups followed predictably by agricultural production at 38.

TABLE V.2 WOMEN ECONOMIC GROUPS BY DISTRICTS IN MWANZA REGION ACCORDING TO ACTIVITY, 1996

Activity	DISTRICTS						
	Mwanza	Magu	Kwimba	Geita	Sengerema	Ukerewe	Total
- Agricultural production	4	-	12	7	5	10	38
- Tailoring	7	7	6	2	8	13	43

- Saving & Credit	-	-	4	-	1	-	5
- Fishing	1	-	-	-	-	1	2
- Milling machines	3	-	2	-	4	4	13
- Tree planting	-	13	10	-	-	-	23
-Poltery "Ufinyazi	1	1	9	1	1	-	13
- Brew making	1	-	2	-	-	1	4
- Poultry	5	-	-	-	-	-	5
- Improved Store making	-	2	4	-	-	-	6
- Water jars making	-	2	12	-	-	-	14
- Canteen (Mama ntilie)	2	-	-	-	3	3	8
Midwifery - "Ukunga	-	-	1	-	-	-	1
- Small scale business	4	-	-	-	-	-	4
- Catte keeping	1	-	-	-	-	-	1

Source: Mwanza Regional Office, Community Development Dept. 1997

5.2 COOPERATIVES

Working together, playing together or coming together for a purpose come naturally to the people of Mwanza. This is helped by the fact that ethnicity wise the region is by and large

homogenous and has a tradition of strong community awareness. When cooperatives were introduced by the then colonial power, Mwanza region quickly established very strong roots. The movement soon flourished into the Victoria Federation and later the Nyanza Union.

In the last fifty years the movement has been through a lot of changes. During the early years it was typified by strong central management control based on sound economic principles, honest and knowledgeable audit and supervision services. This was followed by a period which saw the traditions of responsible management begin to be eroded. Mis-management and corruption become major problems. The government reacted by dissolving the unions and their primary societies and vested their assets and the marketing role into various Crop Authorities. The Crop Authorities were directly responsible to the government. However, the problem of non-participation by people in the decision making process regarding their economic activities especially the determination of producer prices soon lead to the rethinking of the whole exercise. Cooperatives were resurrected. Their assets were returned to them. Unfortunately, at that time the government was preoccupied production. Pressure was put on the new cooperatives to service all producers equally. This lack of clear distinction between members and non-members lead over time to many cooperatives running bankrupt. The primary societies were dominated by non-members who had little if any allegiance to the cooperative movement. Again the government had to intervene The new Cooperative Act of 1991 was born.

The Act restructured the movement by reducing government intervention to the minimum, giving freedom to individuals to join or not to join a primary cooperative. It provided for strict

membership including the payment of entry fees and the obligation of every member to purchase at least one share. It gave freedom to cooperative societies to form or not to form unions, federations and APEX marketing organizations. Thus the stage was set for responsible management on sound economic footing. But at the same time the cooperative monopoly in purchasing all crop produced by members and non-members alike, was abolished. The cooperatives have now to compete with other private sector buyers. This has put pressure on the movement to perform efficiently or be ploughed under.

Table V.3, shows the extent of the cooperative movement in the region, according to district and type of activity. Naturally, agricultural cooperative primary societies dominate. They are 344. Fishing, consumer, savings and credit societies come a poor 2nd, 3rd and 4th respectively. The region has a total of 429 primary societies.

At the secondary level, the region boasts of two Cooperative Unions based in Sengerema and Mwanza. Cotton being such an important cash crop in the region, influenced the societies, through their unions to become members of the cotton marketing APEX organization TACOTA

TABLE V.3 COOPERATIVE SOCIETY ACTIVITIES IN MWANZA REGION 1996

TYPE OF COOPERATIVES	DISTRICT							
	Sengerema	Geita	Kwimba	Magu	Mwanza	Ukerewe	Misungwi	Total
AgriculturalMarketing Coop. Societies	70	71	58	83	7	15	40	344
Consumers	-	-	-	-	15	1	-	16
Rural Savings and Credit	-	-	-	-	-	1	2	3
Urban Savings and Credit	2	-	2	1	6	-	1	12
Industries	-	-	4	-	3	1	-	8
Multipurpose	-	-	-	-	5	-	-	5
Services	-	-	-	-	12	1	-	13
Building	-	-	1	-	2	1	1	5
Fishing	1	-	1	-	10	4	4	20
Mining	-	-	-	-	-	-	1	1
Transport	-	-	1	-	1	-	-	2
Dairy	-	-	-	-	-	-	-	-
Total	73	71	67	84	61	24	49	429

Source: Regional Cooperative Officer Mwanza, 1997

5.3 NON-GOVERNMENTAL ORGANIZATIONS (NGOS)

Non-governmental organizations (NGOs) play a crucial role in the welfare and development of the region. They do this by supplementing the meagre resources available to people in the region through government agency. There are a total of 20 NGOs active in various sectors. For convenience they are divided into two categories; those engaged throughout the region and secondly, those confined to individual districts.

NGOs which operate throughout the region, sector by sector are as follows:-

A. Social Services Sector:

- TAMEA - Child care
- ELCT - Water, health and education
- Diocese of Victoria Nyanza - Water, health and education
- AICT - Social services generally
- AMREF - AIDS control and research
- TANESA - AIDS control

B. Agricultural Sector:

- NIGP - Production inputs
- ELCT - Agricultural loans
- AICT - Agricultural Income generation
- CARITAS - Food aid in hunger stricken areas, also agricultural loans
- TAHEA - Loans for Household food security
- TAMEA - Loans for microprojects

C. Environmental Sector:

- ELCT - Loans for invirolmental projects
- Diocess of Victoria Nyanza generation - Environmental income
- Moravian Church - Afforestation
- AICT - Environmental income generation
- CARITAS - Loans for afforestation
- TAHEA - Loans for afflorestation
- TAMEA - Loans for microprojects

Women Sector:

- TANESA - Income generation loans
- NIGP - Supply of Inputs loans
- Diocese of Victoria - Income generation loans
- AICT - Income generation loans
- TAHEA - Income generation loans
- TAMEA - Loans for microprojects

- E. **Youth Sector:**
- NIGP - Loans for the supply of inputs
 - Diocese of Victoria Nyanza - Income generation loans
 - AICT - Income generation loans
 - TAMEA - Loans for micro projects
 - OXFAM - Youth Employment activities
 - and training

F. **Savings and Credit Sector:**

- Moravian Church - Loans to Savings and Credit groups

Some NGOS operate only in selected districts. Each district has its own unique complement of NGOs thus:-

A. **Mwanza District:**

- DANTAN - Health sector equipment
- Plan International - Rehabilitation and equipment for primary schools
- KULEANA - Help for street children
- A E - Help for street children
- S D A - Health and Birth control
- LAVESO - Anti pollution projects for Lake Victoria
- BAKWATA - Education & Health
- BARAZA KUU (Muslim) - Education and Health

B. **Magu District:**

- C A R E - Household food security
- DANTAN - Health equipment
- AID in Action - Rehabilitation of aid equipment for primary schools

C. **Kwimba District:**

- C A R E - Household food security
- DANTAN - Health equipment

COOPIBO - Research in building materials locally available for appropriate housing construction in rural areas

World Vision - Supplementing individual and group development action in various sectors of development
AICT - Improved seeds
- AEE-Afforestation

D. **Sengerema District:**
World Vision - Supplementing individual and group action in various sectors of development
- AICT - Shallow wells

E. **Misungwi District:**
COOPIBO - Research into locally available building material and their use in the construction of appropriate housing in rural areas.

F. **Ukerewe District:**
DANTAN - Health Equipment

5.4 **REGIONAL DEVELOPMENT PROGRAMS SUPPORTED BY DONORS**

Multilateral and bilateral donors supported by the world community and foreign governments are active in the region. They are involved with aid to the regional, district or even village governments mainly in improving infrastructure and government given services. A list of current programs and projects covered by donors are given below:-

I.R.P.(1993/4-200) : This project is funded by the EU, IDA and USAID for the improvement of

rural roads in the districts of Geita, Sengerema, Magu and Kwimba.

Smallholder Irrigation
for Marginal Areas
(1993/4 - 1997/8) :

This IFAD funded project has so far initiated and completed irrigation works in 2 villages in Magu, one village in Misungwi and one in Kwimba

NALERP (1991 - 2001)

It is World Bank and ADB funded, to cover the region with effective agricultural extension services.

HESAWA (1986/7-97/98)

Funded by SIDA, this covers the whole region with the exception of Mwanza urban. It is set to improve health, sanitation and water supply facilities. The project also trains primary health care workers.

FRMP (1992 - 1998)

The World Bank also funded this project intended stage by stage to cover the whole region. It handles demarkation of village boundaries, popularize energy saving stoves, foster afforestation and the conservation of natural forests.

Strengthening of Primary
Education (1994-1998)

The EU funded this effort at organization of Std IV and Std VII national examinations in region

District Capital

Development (1996-2000) The purpose of this UNCDF/UNDP funded project is to effect sustainable road development in villages and seek ways to enhance local government revenues

Urban Sector Infrastruc-
ture and Rehabilitation
(1996-2000)

This is for road and sewerage improvement as well as protection of the environment. It covers Mwanza municipality. The World Bank funds this project.

District and Feeder
Road Project
(1996/7-2000)

This project is funded by UNDP/UNCDF for road rehabilitation and provision of rural employment as a side effect. The whole region is covered.

Education and Health
Rehabilitation

NORAD funded, this project which deals with the rehabilitation of secondary schools. In the health sector it provides drugs and equipment region wise.

Training of Women Group

The project is supported by CIDA to provide funds for the training of women in various technological skills and project management.

5.5 ENVIRONMENTAL CONSERVATION

The major problems facing the region with respect to the environment are:

- The invasion of water hyacinth in Lake Victoria
- Industrial pollution of Lake Victoria

- Uncontrolled fishing in Lake Victoria
- Deforestation
- Degradation of pasture lands and over cropping of cultivated lands.

The over population by humans and livestock especially in the "Sukuma Heartland" districts of Magu, Kwimba and Misungwi has put enormous pressure on the environment in these areas. The land has been depleted of any forest cover, over grazing and the accompanying evil of soil erosion is rampant. Over cropping has reached such an extent that soils no longer respond adequately to chemical fertilizers.

Over the decades, emigration into Mwanza, Geita and Sengerema districts has reduced the pressure on the 'heartland' districts. But human and livestock increases have negated the environmental benefits from such emigration. The lack of forest cover has lead to soil erosion and generally compounds the depletion of soil fertility of the over cropped and over grazed lands. Fuel wood is hard to come by and has to be brought in from long distances. Fuel wood is now so scarce in Magu that many households resort to cattle dung for cooking. The residents of Irugwa Island in Ukerewe district resort to burning grass for their cooking.

But the most damaging result of this environmental degradation is its influence on climate. It is an open secret that the districts of the "hearland" now experiences low, inadequate and erratic rains, where before the rains were plentiful and reliable. This is desertification setting in.

What is being done to arrest desert encroachment is praise worthy but inadequate in the extreme. Forest conservation and

afforestation efforts should be redoubled and then redoubled. The search for alternative sources of domestic energy should be taken seriously. Electricity as an alternative. But where it is made available it is rendered ineffective by policies which insist on high tariffs for domestic electricity. Such high tariffs are pricing electricity out of the market. The over whelming majority of homes with electricity in Mwanza use fuelwood or charcoal for their cooking. It is too expensive to use electricity. It could be said, therefore, that the policy of high electricity tariffs is contributing toward environmental degradation in the region.

In the fishing industry, the use of wrong net sizes and dynamite is damaging the fish bio-mass. The introduction of the Fresh Water Fishing Act of 1994 will counter act these evils and so protect the lake and its bio types.

Industrial pollution is a relatively new phenomenon. All Mwanza municipality industries pour their waste products including toxic wastes into the lake. Little has been done so far to correct this. An even newer environmental threat is the coming into Lake Victoria of the beautiful but undesirable water hyacinth plant. This weed is clogging the lake and reducing the penetration of sunlight into the waters of the lake. In the long run this will reduce fishing and even change the ecology. The weed also clogs water ways and interferes with water vessels. Again, as elsewhere on the environmental scene, little is being done. Some NGOs are working with people of Mwanza to weed out the plant out of the water by hand. The impact of this technology on the problem is something but it is pitifully inadequate. The threat poised by water hyacinth is real and it is rapidly getting worse each day that passes. Something has to be done now.

5.6 **TOURISM**

This is one of the least developed of the sectors. Yet given the attraction of Lake Victoria and good game reserves within accessible distance, this sector could become a significant foreign exchange earner and employment sector. The game reserves are at Saa Nane island, Rubondo island and Kijereshi. The region also boasts of two Game Controlled areas. They are Chabula Marshland and Maswa. The latter is shared with Shinyanga region.

The rich Sukuma culture could be an attractive investment area for cultural tourism. Facilities in place are two tourist class hotels and regular Boeing 737 connections to Arusha, Dar es Salaam and Entebbe. A leisurely trip on the lake could be made using "M.V. Victoria" which has adequate though limited cabin service. The vessel ploughs between Mwanza and Bukoba. For those who wish for an overland route to Mwanza, the Tanzania Railway Corporation runs 4 services a week to Mwanza from Dar es Salaam. Both first and second class accommodation are available on the trains.

SECTION VI

POTENTIAL INVESTMENT AREAS:

6.1 Agriculture:

Mwanza region has good potential for a wide variety of crops i.e. food crops, cash crops and horticultural crops. The region with its unique problems of high population density and a high livestock population demand for serious development strategy of potential areas suitable for agricultural development. Self sufficiency in food production within the region is of paramount important.

It has been referred to earlier in the text that Sengerema and Geita districts are the only ones in the region which have surplus suitable areas for agriculture.

The districts are well favoured in having reliable rains of over 900 mm per year. These agricultural investment potential areas are in the divisions of: Bugando, Busanda, Kasungamile, Nyakiliro, Kahunda, Nyang'wale and Butundwe Sub-division.

Principal food crops suitable for these areas are; maize, beans, paddy, cassava. Horticultural crops are mainly citrus (oranges), bananas and pineapples. Cotton as a cash crop in these areas is a highly regarded cash crop. However, much is yet to be done for the farmers to maximise realisation of their agricultural efforts.

These to Western districts in the region contribute very significantly to cotton production share in the region. There are again two areas in the region namely Ibindo and Mwamashimba divisions which have unique agricultural potentials. Ibindo division

(Malya Sub-division) an area suitable for paddy cultivation. Only a small portion of the potential area is developed. Here, traditional methods of irrigation are used for the crop. Mwamashimba division is an extensive division, traditionally it is famous for Chickpea production, a crop highly demanded in India.

The irrigation potential of the region cannot be ignored. It provides for investment potential of a very sound nature. An IFAD financed project in the region has identified areas of smallholder irrigation in all the district of the region. They await financial resources to be exploited.

The waters of Lake Victoria offer a Challenge for Irrigation. But to date the technology to put this water to use has not been affordable. Investment in technology investigations could open a truly productive future for Mwanza people and others around the Lake.

6.2 Livestock:

The region has the highest livestock density in the country and the third largest total herd of all regions. The increased meat production for intra and inter-regional consumption, hides and skins for domestic and export must have high priority. Realisation of the economic potential of this sector has been marginal. Its contribution to the regional GDP has been very low indeed.

The livestock sector in Tanzania is a very difficult one to deal with for reasons of the traditional and sociological backgrounds of the cattle owners.

Much need to be done to educate cattle owners in this zone in order to realise the importance of destocking the surplus herd.

The Introduction of dairy keeping is a positive move away from traditional livestock keeping. Area to start with could be those areas near to or around-towns for easy access to the milk markets. Secondary areas could be those already identified as suitable for potential agricultural development. These areas have adequate pasture and watering supplies for livestock.

The possibility of initiating fattening ranches on sound cooperative basis could be started in areas of adequate land such as Mwamashimba division in Kwimba district and the Mabuki areas in Misungwi district.

Other areas of possible investment in this sector are through development of inter regional livestock trade between the neighbouring countries of Kenya, Uganda and possibly the Democratic Republic of Congo (Zaire). To facilitate this, there must be proper development of lake transport for the Uganda and Kenya livestock trade.

Similarly development of livestock routes with all the necessary livestock facilities could be put in place to facilitate the livestock trade with former Zaire.

6.3 Transport:

The main objective for transport development in Mwanza region is to firstly to improve inter regional transport links, the second objective is to improve intra regional road links which fall under regional, district and feeder roads. This network should connect

all parts of the region down to village level. The priorities for investment in this sub sector are:

The upgrading of trunk roads connecting Mwanza to Bukoba and hence to Uganda. Such upgrading would complete a ring of trunk roads around Lake Victoria, connecting the three East African countries, thus opening up untold opportunities for trade and tourism.

The trunk road to Dar-es-Salaam from Mwanza Via Nzega, Singida and Dodoma is a lifeline for the Lake regions of Mwanza, Kagera and Mara, as well as the midland regions of Shinyanga, Tabora and Singida. Its upgrading to tarmac standards is an urgent matter.

Feeder and district roads could open up the agricultural potential of Sengerema and geita districts if serious effort is made to construct, rehabilitation and maintain them. These potential agricultural areas are in the divisions of Bugando, Busanda, kasungamile, Nyakiliro, Nyanghwale, Kahunda and the sub division of Butundwe. Principal crops suitable for these areas are Maize, beans, cassava Horticultural crops are circus fruits, bananas and pineapples. Cotton is the principal cash crop. Another agricultural potential area to reach is mwamashimba in kwimba district whose production of chickpeas is impressive.

Marine transport for movement around lake Victoria is in short supply. What transport exists with TRC is utilized to capacity. There is room for more lake gong vessels to move goods and people. The growth of marine transport is stunted for lack of new investment.

There is always a scramble for regular air transport for passengers and goods at Mwanza Airport. The demand for such services is very strong. This is a potential area for investment.

As we approach the 21st century Mwanza's relative isolation has to end. Telecommunications in the form of telephones, faxes, TV and e-mail are needed. The Mwanza region economy is strong enough to support such innovations on a sustainable basis.

6.4. Health:

In a not too distant future health care delivery will mostly be in private hands. The role of the public sector is on the annex. Government policy has thrown the door open for private investment in health. Already more than 50% of all hospitals and 35% of dispensaries are in private hands. In 1978 the population coverage per dispensary was 7,678. The situation in 1996 is not very much better. It is 7,257 people per dispensary. This means the number of dispensaries is barely keeping up with population increase. Hand in hand with the privatisation of health facilities is the expected increase in the demand for qualified nurses, medical assistants, rural medical aids, laboratory technicians etc... There is room for private investment in the training of health manpower. Trained manpower of all cadres are even now in short supply.

Assistance in the field of Vaccine Supply drug supply, health equipment and technical assistance offer a very large field for the participation of NGOs' major donors and even individuals in the development of the health sector in the region.

In the municipal district of Mwanza the environment is under a lot of pressure. Sewerage and sanitation are critical services if the population is not to be overwhelmed with disease epidemics.

The Municipal Council has not got the resources to provide for a satisfactory service. Assistance is required.

The spread of AIDS needs to be contained. Any help towards this direction will save the region from the brink of economic and social disaster. The care of AIDS Victims is a social problem which needs urgent attention and dedication by all including potential investors.

6.5 Environmental Protection:

The region on its own cannot control the spread of Water hyacinth. It has not got the technology nor the resources to make a dent in the spread of this weed. Help is required.

Dynamite fishing can be controlled by provision of fast patrol boats to monitor the activities of fishermen engaged in this illegal practice.

Afforestation through the planting of trees in each homestead, around fields, and in village woodlots can be done provided assistance is forthcoming in making such seedlings available at the right time and at an affordable cost. The establishment of tree nurseries in strategic areas is important.

6.6 Tourism:

In order to develop this region's tourist industry efforts have to be made to establish "tourist class" hotel facilities and a tourism promotion drive to advertise Mwanza's attractions. There are great opportunities in the development of cultural tourism given the rich Sukuma Culture. Individual residents could benefit directly by

involving themselves directly in such promotion. Investment is also called for in the improvement of rail and air transport services to and from Mwanza.

The development of a ring road around Lake Victoria will bring the region directly into contact with the tourist circuits of Kenya and Uganda.

6.7 Mining:

The development of Geita's goldfields is already attracting many prospectors from within and outside Tanzania. Further investment is required in equipment, expertise, capital and infrastructure. Infrastructure includes access roads and basic housing. The existence of mining centres will lead to the establishment of Mining towns and consequently this will stimulate commerce trade, transport and food production in the district. The existence of thriving goldfields will open up a wide vista of investment opportunities in all sectors.

There are other minerals in the region the prospecting for which could prove worthwhile. The government Ministry responsible should provide the necessary guidance.

6.8 Education:

It is now government policy to allow the private sector (including religious bodies, private individuals, NGOs and entrepreneurs) to establish pre-primary, primary and secondary schools. In spite of a dramatic increase in primary school enrolment over the years, the number and quality of primary schools has not kept pace. In 1978 the coverage was one primary school to every 2,371

people. The corresponding figure for 1995 is 2,670. The demand is there and is even stronger with respect to secondary schools.

Post primary and post secondary education is also in demand. Few pupils go to Secondary School after primary education and few ex-secondary school pupils get employment. These young people need skills for self employment or to improve their chances of being employed. Hence, vocational training in various trades comments itself to potential investors. Investment in technical colleges is also indicated.

NGOs, Bilateral and Multilateral donors could invest in the improvement of the quality of education for both primary and secondary schools. Quality in these school could improve drastically through assistance in school furniture, classroom building, provision of school toilets, provision of learning and teaching aids and even teacher housing construction.

In the field of adult literacy, post literacy reading materials are needed to keep adults literates literate and to reinforce functional literacy. Such materials should be within financial affordability of the target group. There is quite a lot of post literacy literature even now, but it beyond the financial ability of the very large majority of literates to acquire.

6.9 Forestry:

Mwanza region, especially the "Sukuma Heartland" districts of Kwimba, Misungwi and Major can only partially replace their lost forest cover by concerted efforts at afforestation. Tree seedlings should be easily accessible to residents for planting their own

woodlots, shade trees at the homestead and to mark field boundaries. Hence, investment in tree nurseries is called for. The setting aside by a village of community woodlot areas for communal planting is another approach which could prove effective.

Local government should invest in the protection of existing forest reserves from encroachment. Such innovative approaches as encouraging households to plant and look after a specific number of trees in exchange for development levy could be tried by District Councils.

The investment in education and the distribution of energy saving stoves could reduce the rate at which forests are being depleted as well as save incomes.

Investment in rural electrification and the reduction of tariffs could popularise the use of electricity as an alternative to fuelwood for cooking and lighting purposes. This can save forests.

Commercial tree plantations in Sengerema and geita districts especially the divisions of Bugando, Busanda, Kasungamile kahunda and Butundwe Sub-division are an attractive possibility. Such plantations would cater for soft timber needs and for building poles.

6.10 Fisheries:

Annual fish harvests of 200,000 tons could be realised without endangering the fish biomass. In some 80,000 tons were harvested and a part of this was processed into fish fillet by fish processing factories. There is still a lot of room for more fish processing factories in the region.

Annual fish catches are still low because of low capacity gear and fishing vessels. Investments into more, better and more modern fishing gear and vessels are called for patrol boats to monitor dynamite fishing are a consideration (see environmental protection).

6.11 Beekeeping:

kwimba, Geita and Sengerema district show potentials for investment in beekeeping. This activity lands itself well to the small investor and to giving employment to young people in rural areas. Investment in modern beehives and the processing of honey and beeswax centrally would enhance both yield and quality of the products. marketing could be handled better giving rise to good producer prices. Local carpenters could be involved in the manufacture of modern beehives and honey presses.

6.12 Water Supplies

The water supply population coverage for Mwanza Region is 44%. Rural areas are at 42% and urban centres at 52%. This means there is a huge gap between water supplies and the demand for potable and adequate water. Investors are more than welcome. HESAWA has been doing a commendable job. Because of the varied nature of the technologies involved with water supplies, there is room for the small investor and the big investor. One improved traditional shallow well does not cost too much to construct and equip. On the other hand water supplied to urban areas are best done using piped water systems which can be quite expensive.

6.13 Women development

Investment in the formation of women groups for income generation or any other purpose is a step in the direction of gearing women consciousness to their liberation.

Investment in resources which go to the betterment of the lot of women e.g. through income generation contributes towards women economic development.

Gender issue for should be encouraged and invested in. This could lead to the rejection of customs, laws and practices of discrimination against women.

6.14 Industrial Development

It is through industrial development in the region that the ever increasing number of unemployed youths in Tanzania could gain employment opportunities in the future. The existing industrial establishments so far have not significantly solved the problem. There is wide scope for potential investors to invest in agro-industries for the processing of agricultural and livestock products.

Medium sized industries are such as textile mills, vegetable oil mills, animal feed mills and cassava starch processing. Others are fruit canning in Sengerema and Ukerewe districts, Medium sized meat processing and packing plants, dairy products processing plants and farm tools and equipment manufacturing factories. Supporting infrastructures and services could act as the catalyst necessary to speed up industrial development in the region. Both the public and the private sector including NGOs could participate in this.

ANNEX A

MWANZA REGION IN A NUTSHELL

1.0. Location:

Northern part of Tanzania between latitude 1°31' and 3° south of the equator, and between longitude 31°45' and 34°10' east of Greenwich.

1.1 Land Frontiers:

North west	-	Kagera region
West	-	Kagera region
South	-	Shinyanga region
South east	-	Shinyanga region
East	-	Mara region
North east	-	Mara region

1.2 Land Area:

Land	-	20,095 sq.km
Water	-	15,092 sq.km
Total	-	35,187 sq.km

1.3 Population:

1988 Census 1,878,271 equal to 8.1% of total population of Tanzania which was 23,126,952. 1995 estimates 2,307,636

-	Population growth rate	2.6
-	Population density	114.8
-	Average household size	6.4
-	Population estimates 2000 at	2,688,184
-	Net lifetime migration 1988 Census	33,504

1.4 Climate:

Tropical type marked by two seasons. The dry season and the rain season. The rain season is further divided into the short rains (October to December) and the long rains (March to May).

The rainfall pattern is erratic. The average is 930 mm per year. Weather in the west and the western part of Ukerewe island where rains reach as high as 1,800mm. Drier towards the south and south eastern where the rainfall average falls to 750 mm per annum. The average temperature is 31oC.

1.5 Agro-economic Zones:

- Zone I High rainfall, low population density. Soils are of fair fertility normally browns yellow/red loamy sands. Well drained
- Zone II High rainfall high population density. Soils of good fertility normally red to yellow red, sandy clay loams widely cultivated. Also available poorly drained and wet loamy sands and black clays.
- Zone III Low rainfall, high population density. "The Sukuma Heartland" zone. Soils of the "Sukuma Catena" of granite in selbergs at top progressing through yellow/red sands to loamy sands and clays at valley bottom.
- Zone IV Moderately high rainfall, moderate to high population density. Topographically isolated hill masses and ridges with wide plans. Soils black waterlogged clays at valley bottom with small or large areas of sand at the top.
- Zone V Low rainfall, moderate population density. Soils almost exclusively the waterlogged loamy sands and black clays
- Zone VI Very high rainfall, very high population density soils sandy.

1.6 **Agricultural Production:**

Peasant subsistence mostly. Food production maize and cassava. Cash crops `mainly' cotton. Production technology low. No commercial farms. Region net importer of food.

1.7 **Access to Electricity:**

5.4 percent of households had electricity (1988 Population Census) equivalent to 292,962 out of the total regional population of 1,878,271.

1.8 **Administrative:**

Has seven districts, 33 divisions, 168 wards and 682 villages

1.9 **Tourism:**

Tourist attraction Saa Nane Island, Kijereshi and Rubondo island game reserves. Sine game controlled areas for hunting.

TABLE 1 BASIC FACILITIES IN MWANZA REGION BY DISTRICT 1995

Facility	Magu	Kwimba	Misungwi	Geita	Sengerema	Ukerewe	Mwanza	Total
Primary schools								
- Public	156	220	-	194	145	81	57	853
- Private	0	0	-	0	2	0	5	7
Secondary schools								
-Public	1	2	1	1	2	1	6	14
-Private	2	2	1	4	2	2	7	20
Vocational Training Centers	0	0	1	1	0	1	2	5
Hospitals								
-Public	1	1	0	1	0	1	1	5
-Private	1	1	1	0	1	0	3	7
Rural Health Centres								
-Public	4	2	3	5	5	2	1	22
-Private	0	0	0	0	1	1	1	3
Dispensaries								
-Public	37	27	29	37	35	22	15	202
-Private	2	2	2	18	8	8	76	116
MCH Clinics	43	31	35	45	38	28	25	245

TABLE II SELECTED SOCIAL AND ECONOMIC INDICATORS OF MWANZA REGION 1995

Indicator	1974	1985	1995
<u>Education Sector</u>			
Primary School Education			
- Number of Primary schools	476	792	864
- Pupil enrolment	89,653	282,781	332,787
Total			
Secondary School Education			
- Public	4	6	14
- Private	2	4	20
- Total	6	10	34
Adult Literacy %	44 (1978)	57 (1988)	75 (1996)
<u>Health Sector</u>			
Life Expectancy at birth	44 (1978)	48 (1988)	-
Infant Mortality Rate	161(1978)	138(1988)	-
Under Five Mortality Rate	233 (1978)	192(1988)	-
<u>Water Sector</u>			
% Population with access to clean and safe water			
- Rural	-	-	42
- Urban	-	-	53

<u>Economic Sectors</u>			
GDP (billion shs current prices)	-	9.2	108 (1994)
GDP/capita (shs current prices)	-	5,332	48,508 (1994)

A N N E X B

MAGU DISTRICT

1.0 GENERAL INFORMATION:

1.1 LOCATION:

- North - Ukerewe district and Mara region lake waters
- North East - Mara region
- South East - Shinyanga region
- South - Kwimba district
- West - Mwanza district

1.2 AREA AND POPULATION

- Land 3070 sq.km
- Water 1725 sq.km
- Total 4795 sq.km
- % of total regional area 13.6
- 1988 Census population 310,918 with a growth rate of 1.8% per annum.
- Population projection by 1995 358,200
- Population density projection by 1995 116.7
- Population projection by year 2000 439,434
- Average household size 6.4 (1988)

1.3 CLIMATE:

This district shares a similar climate with Kwimba. Low and unreliable rainfall is the rule with crop failures especially maize production very frequent. It is dry and tropical. Annual average rainfall is some 800 mm.

1.4 ADMINISTRATIVE SET UP

- Divisions 6
- Wards 27

2.0 **ECONOMIC ACTIVITIES**

- The major economic activities of Magu district are farming, livestock keeping and fishing.

a) **Crops**

Food crops are sorghum/millet, maize and paddy
Cash crops are cotton

b) **Livestock**

According to 1984 Livestock Census the district had 294,574 cattle, 96,519 goats, 80,125 sheep and 375 donkeys.

Livestock facilities in use in the district are:

- 6 dips (20 others not in use)
- 8 abattoirs
- 18 Crushes
- 6 Livestock health centers
- 16 Hides and skin sheds

3.0 **COMMUNICATION:**

a) **Roads**

Magu district has the following network of roads:

Road Type (kms)

<u>Trunk</u>	<u>Regional</u>		<u>District</u>	<u>Feeder</u>	<u>Total</u>
128	165	393	550	1236	

Kinds of road surface (kms)

<u>Tarmac</u>	<u>Gravel</u>	<u>Earth</u>	<u>Total</u>
120	125	991	1236

Road density: 0.403 km/sq.km

b) **Other:**

The district is connected to the rest of the world by telephone

4.0 **WATER**

- a) **Urban** Number of people covered by clean and safe water facilities 14,119. Population covered 48%
- b) **Rural** Number of villages covered by clean and safe water facilities 110

% villages covered 95, Number of people covered by clean and safe water facilities 183,527
Population covered 56%

5.0 **HEALTH**

- Hospitals 2
- Rural health centers 4
- Dispensaries 39
- MCH clinics 43

6.0 **EDUCATION:**

- Number of primary schools 159
- Total primary school enrolment 56,593
- Number of secondary schools 3
- Number vocational training centers 0

7.0 **ENERGY:**

288 Household in the district are supplied with electricity out of 48,016 total households in the district, equivalent of 0.6% supplied (1988) Population Census.

A N N E X C

KWIMBA DISTRICT

1.0 GENERAL INFORMATION

1.1 LOCATION

- North - Magu district
- East - Shinyanga region
- South - Shinyanga region
- West - Misungwi district

1.2 AREA AND POPULATION

- Land 3,903 sq.km
- Water 0 sq.km
- Total 3,903 sq.km
- % of Total Regional area 11.1
- 1988 Census Population was 428,135 with a growth rate of 2.7% per annum (including Misungwi)
- Population projection by 1995 292,343
- Population density estimate 1995 74.8 per sq.km.
- Population projection by year 2000 32,142
- Average household size (1988) 6.7 (including Misungwi)

1.3 CLIMATE

A tropical dry climate which gets very hot towards the end of the dry season. The district has two well defined seasons. The dry season and the rainy season. Rainfall tends to be scanty, patchy and generally unreliable. The average rainfall is around 800 m.m per annum

1.4 ADMINISTRATIVE SET UP

- Divisions 5
- Wards 25
- Villages 110

2.0 ECONOMIC ACTIVITIES

- The major economic activities of Kwimba district are farming and livestock keeping

a) **Crops**
 Food crops are maize, paddy sorghum/millet and cassava. Cash crops are cotton and chick peas

b) **Livestock** (figures include Misungwi district)

According to the 1984 livestock census the district had 506,874 cattle, 166,445 goats, 120,589 sheep and 4,416 donkeys

Livestock facilities in use in the district are:

- 25 dips (32 others not in use)
- 9 abattoirs
- 16 crushes
- 13 livestock health centers
- 22 hides and skin sheds

3.0 **COMMUNICATION: (includes Misungwi district)**

a) **Roads**

Kwimba district has the following network characteristics:-

Type of Road (kms)

<u>Trunk</u>	<u>Regional</u>	<u>District</u>	<u>Feeder</u>	<u>Total</u>
113	361	364	508	1,346

Kind of Road Surface (kms)

<u>Tarmac</u>	<u>Gravel</u>	<u>Earth</u>	<u>Total</u>
0	373	973	1,346

Road Density: 0.230 kms./sq.km.

b) **Other**

Kwimba district is linked by telephone to the rest of the country. It is also served by the Central Railway system.

4.0 WATER

- a) Urban
 - Number of people covered by clean and safe water facilities 10,732
 - Population covered 57%

- b) Rural
 - Number of villages covered by clean and safe water facilities 89
 - % village covered 81
 - Number of population covered by clean and safe water supplies 123,082
 - Population covered 45%

5.0 HEALTH:

-	Hospitals	2
-	Rural Health Centers	2
-	Dispensaries	29
-	MCH clinics	31

6.0 EDUCATION

-	Number of primary schools	220
-	Total of primary school enrolment	72,387
-	Number of secondary schools	4
-	Number of vocational training centers	0

7.0 ENERGY:

514 Household or 0.8% out of 63,876 total district households

ANNEX D

MISUNGWI DISTRICT

1.0 GENERAL INFORMATION:

1.1 LOCATION:

- North - Mwanza and Magu district
- East - Kwimba district
- South - Shinyanga
- West - Geita and Sengerema districts

1.2 AREA AND POPULATION:

- Land 1947 sq.km
- Water 175 sq.km
- Total 2112 sq.km
- % of Total Regional Area 6.0
- 1988 Census Population - See Kwimba
- Population projection for 1995 237,397
- Population density 1995 estimate 121.9
- Population projection for year 2000 people per sq.km 263,983
- Average household size (1988) - See Kwimba

1.3 CLIMATE:

Tropical dry climate predominates with well defined dry and wet seasons. Rainfall under 900 mm per annum.

1.4 ADMINISTRATIVE SET UP

- Divisions 4
- Ward 20
- Villages 78

2.0 ECONOMIC ACTIVITIES

- The major economic activities of Misungwi district are farming and livestock keeping

a) **Crops**
Food crops are maize, paddy, sorghum/millet and cassava. Cash crops are cotton and chick peas

b) **Livestock**
For 1984 Livestock census figures see Kwimba district of which Misungwi was part.
Livestock facilities exist and are in use in the district. Their number has been included in the figures for Kwimba district.

3.0 **COMMUNICATION:**
The road network analysis for this district is shown under Kwimba district of which Misungwi was at one time a part.

4.0 **WATER**

a) **Urban**
- Number of population covered by clean and safe water supplies 9,080.
- Population covered 55%

b) **Rural**
- Number of villages covered by clean and safe water supplies 43
- Villages covered 55%
- Number of population covered by clean and safe water supplies 99,351
- Population covered 45%

5.0 **HEALTH:**

-	Hospitals	1
-	Rural Health Centers	3
-	Dispensaries	31
-	MCH Clinics	35

6.0 **EDUCATION:**

- Number of primary schools (See Kwimba)
- Total of Primary Schools enrolment (See Kwimba)
- Number of secondary schools (See Kwimba)
- Number of Vocational Training Centers (**See Kwimba**)

ANNEX E

GEITA DISTRICT

1.0 GENERAL INFORMATION

1.1 LOCATION

North East	-	Sengerema district
North West	-	Kagera region
South East	-	Kwimba district
South	-	Shinyanga region
West	-	Kagera region

1.2 AREA AND POPULATION

- Land : 6,775 sq km
- Water: 1,050 sq km
- Total: 7,825 sq km
- % Total Regional Area: 22.2
- 1988 Census Population was 439,191 with a growth rate of 3.6% p.a. Population projection by 1995: 585,545. Population density estimate 1995: 86.0 Population projection by the year 2000: 719,565 Average Household size 1988: 6.5

1.3 CLIMATE

Geita is similar in climate to Sengerema district which it borders. It also borders to west with Kagera region where rainfall is reliable and on the high side. Two rainy seasons are the rule. Average annual rainfall is over 950 mm.

1.4 ADMINISTRATIVE SET UP

- Division: 7
- Wards: 27
- Village: 163

2.0 ECONOMIC ACTIVITIES

- The major economic activities in Geita district are Farming, livestock keeping and fishing

a) **Crops**
Food crops are: maize, cassava sweet potatoes and bananas

b) **Livestock**
According to the 1984 livestock census the district had 272,248 cattle, 144,725 goats, 32,251 sheep and 896 donkeys

Livestock facilities in use in the district are:

- 3 dips (28 others are not in use)
- 8 abattoirs
- 4 crushes
- 7 Livestock health centers
- 18 Hides and skin sheds

3.0 **COMMUNICATION**

a) **Roads**
Roads include:
Trunk roads: 61 kms
Regional roads : 383 kms
District roads: 500 km
Feeder roads: 573 kms
Total 1517 kms

Kind of road surface (km)

Tarmac -	NIL-
Gravel	256
Earth	1261
Total	1,517

Road Density: 0.224 km/Sq km.

b) **Other**
The district is connected to the rest of the world by telephone

4.0 **WATER**

a) **Urban**

- Number of people covered by clean and safe water facilities 10,620
- Population covered 45%

b) **Rural**

- Number of villages covered by clean and safe water facilities 120
- % village covered 74
- Number of people covered by clean and safe water facilities 189,932
- % population covered 34

5.0 **HEALTH**

-	Hospitals	1
-	Rural Health Center	5
-	Dispensaries	55
-	MCH clinics	45

6.0 **EDUCATION**

-	Number primary schools	197
-	Total primary school enrolment	68,624
-	Number secondary schools	5
-	Number vocational training centers	1

ANNEX F

SENGEREMA DISTRICT

1.0 GENERAL INFORMATION

1.1 LOCATION

North	-	Kagera region lake waters
North West		Kagera region lake waters
South West		Geita district
South		Geita district
East		Mwanza and Misungwi districts
North East		Ukerewe District lake waters

1.2 AREA AND POPULATION

-	Land:	3,335 sq km
	Water:	5,482 sq km
	Total:	8,817 sq km
	% Total Regional Area 25.1	
	1988 Population Census: 304,121	
	with a growth rate: 2.2% p.a.	
	Population projection for 1995: 361,238	
	Population density 1995 estimate: 108.3	
	Population projection for the year 2000: 412,907	
	Average Household size 1988: 6.5	

1.3 CLIMATE

The district enjoys fairly reliable rainfall which is on the high side and makes maize production feasible. Two rain seasons are experienced. Temperatures moderate compared to Magu or Kwimba. Average annual rainfall is over 900 mm.

1.4 ADMINISTRATIVE SET UP

Division:	5
Wards:	25
Villages:	124

2.0 ECONOMIC ACTIVITIES

- The major economic activities in Sengerema district are farming, livestock keeping and fishing

a) Crops

Food crops are: Maize, Cassava, Paddy and Bananas

Cash crops are: Cotton, Bananas and horticultural crops

b) Livestock

according to the 1984 livestock census the district had 186,895 cattle, 103,584 goats, 21,657 sheep and 11 donkeys

Livestock facilities currently in use in the district are:

- 5 dips (25 others are not in use)
- 16 abattoirs
- 4 crushes
- 4 livestock health centers
- 10 hides and skin sheds

3.0 COMMUNICATION

a) Roads

Roads include:

Type of Road (kms)

Trunk roads	78
Regional roads	286
District roads	428
Feeder roads	232
Total:	1,024

Kind of road surface (km)

Tarmac	0
Gravel	248
Earth	776
Total	1,024

Road density: 0.307 kms/sq km

- b) **Other**
Sengerema is connected to the national telephone network

4.0 **WATER**

- a) **Urban**
 - Number of people covered by clean and safe water facilities 16,675
 - % population covered 42
- b) **Rural**
 - Number of villages covered by clean and safe water 96
 - % villages covered 77
 - Number of people covered by clean and safe water 122,949
 - % population covered 38

5.0 **HEALTH**

- Hospitals 1
- Rural Health Centers 6
- Dispensaries 43
- MCH clinics 38

6.0 **EDUCATION**

- Number primary schools 147
- Total primary school enrolment 51,456
- Number secondary schools 4
- Number vocational training centers 0

ANNEX G

UKEREWE DISTRICT

1.0 GENERAL INFORMATION:

1.1 LOCATION:

Ukerewe is an island surrounded by the waters of Lake Victoria

- North - Mara region lake waters
- East - Mara region lake waters
- South - Mwanza and Magu district lake waters
- West - Sengerema district lake waters

1.2 AREA AND POPULATION:

- Land 640 sq. km
- Water 5,760 sq.km
- Total 6,400 sq km
- % of Total Regional Area 18.2
- 1988 Census Population 172,893 with a growth rate of 2.2% per annum
- Population estimate 1995 204,179
- Population density 1995 estimate 319.0% per sq.km.
- Population projection for year 2000 225,127
- Average household size (1988) 6.8

1.3 CLIMATE

Surrounded by the lake, the island climate is humid and experiences few periods of extremes of temperature. Rainfall is reliable and on the high side especial in the west where it reaches as much as 1800 mm per annum. Two rainy seasons are experienced

1.4 ADMINISTRATIVE SET UP

- Division 4
- Wards 24
- Villages 74

2.0 **ECONOMIC ACTIVITIES**

- The major economic activities of Ukerewe district are fishing, farming and livestock keeping; in that order.

a) **Crops**

Food crops are cassava, sweet potatoes and bananas. Cash crops are cotton, coffee and horticultural crops

b) **Livestock**

According to the 1984 livestock census the district had 52,884 cattle, 31,821 goats, 203 sheep and one donkey. Livestock facilities in use in the district and are numbered as follows:

- 8 dips (8 others are not in use)
- 19 abattoirs
- 5 crushes
- 3 livestock health centers
- 9 hides and skin sheds

3.0 **COMMUNICATION**

a) **Roads**

The road network has the following characteristics

Road type

- Trunk 0 kms
- Regional 110 kms
- District 255 kms
- Feeder 0 kms
- Total 365 kms

Kind road surface

- Tarmac 0. kms
- Gravel 12 kms
- Earth 353 kms
- Total 365 kms

Road density

0.507 kms/sq.km

b) **Other**

The district is connected to the national telephone network, has an air strip for small aircraft and is served by marine transport connecting the island to Mwanza town.

4.0 **WATER**

A) **Urban**

- Number of population covered by clean and safe water 8,883
- % population covered 63

B) **Rural**

- Number of villages covered by clean and safe water 42
- % villages covered 57
- Number of population covered by clean and safe water 77,234
- % population covered 41

5.0 **HEALTH**

- | | | |
|---|----------------------|----|
| - | Hospitals | 1 |
| - | Rural Health Centers | 3 |
| - | Dispensaries | 30 |
| - | MCH clinics | 28 |

6.0 **EDUCATION**

- | | | |
|---|-----------------------------------|--------|
| - | Number primary schools | 81 |
| - | Total primary school enrolment | 37,012 |
| - | Number secondary schools | 3 |
| - | Number Vocational Training Center | 1 |

7.0 **ENERGY**

Households supplied with electricity - NIL - district.

ANNEX H

MWANZA DISTRICT

1.0 GENERAL INFORMATION

1.1 LOCATION

North	-	Ukerewe district, lake waters
East	-	Magu district
South	-	Misungwi district
West	-	Sengerema district, lake waters

1.2 AREA AND POPULATION

-	Land:	425 sq km
-	Water:	900 sq km
-	Total	1,325 sq km
-	% of Total Regional Area:	3.8

1988 Population Census: 223,013

with a growth rate of 2.7% p.a.

Population estimate 1995: 268,734

Population density 1995 estimate: 632.3 people per sq. km.

Population projection for year 2000: 307,026

Average household size 1988: 5.2

1.3 CLIMATE

The climate is moderated by Lake Victoria and rainfall is more than 900 mm per annum but still unreliable. It is fairly humid but still tropical with marked division between dry and wet seasons. Two rain periods are experienced.

1.4 ADMINISTRATIVE SET UP

Divisions:	2
Wards:	20
Villages:	17

1.4 ECONOMIC ACTIVITIES

- The major economic activities in Mwanza district are, in urban industry, area commerce and services and for rural areas, farming, livestock keeping and fishing

- a) **Crops**
 Food crops are: Maize, Cassava and Sweet potatoes.
 Cash crops:

Cash crops: Cotton and horticultural crops

- b) **Livestock**
 According to the 1984 livestock census the district had 27,573 cattle, 18,224 goats, 4002 sheep and 14 donkeys.

Livestock facilities in use in the district are:

- 1 dip (7 others are not in use)
- 3 abattoirs
- 6 crushes
- 2 livestock health centers
- 4 hides and skin sheds

- c) **Industry**

3.0 COMMUNICATION

- a) **Roads**

Type of Road (kms)

-	Trunk roads	33.5
-	Regional roads	132.0
-	District roads	695.5
-	Feeder roads	0.0
-	Total	861.0

- c) **Industry**

Industrial establishments in the region are 90 in number, 73 of which are situated in Mwanza district. The major ones are:

Fish fillet	- 9	
Cooking oil and cotton	-	6 (5 others elsewhere in the region)
Cotton lint and cotton seeds	-	2 (

Beer	-	1
Softdrinks	-	1
Textiles	-	2
Leather	-	1

Other industries deal mainly in pharmaceuticals, foam mattresses, soap, paints, fishnets, plastics, cosmetics, processing and boat building. seed cakes

Kind of road surface (kms)

Tarmac	19.5
Gravel	49.0
Earth	792.5
Total	861.0

Road Density: 2.026 kms/sq.km

b) Other

Mwanza district which is predominantly urban is well served with telephone, telex and fax links with the outside world. It is connected to Kenya and Uganda by marine transport which also connects it to the regional capitals of Bukoba and Musoma in the neighboring regions. Connected to Dar es Salaam by rail it is also served by railway wagon ferry services which extends to Port Bell in Uganda. A Boeing 737 service is regularly run by Tanzania Air Corporation.

4.0 WATER

a) Urban

- Number of people covered by clean and safe water facilities 116,765
- Population covered 55%

b) Rural

- Number of villages covered by clean and safe water facilities 4
- Villages covered 24%
- Number of people covered by clean and safe water facilities 28,171

- Population covered 50%

5.0 **HEALTH**

-	Hospitals	4
-	Rural Health Centers	2
-	Dispensaries	91
-	MCH clinics	25

6.0 **EDUCATION**

-	Number primary schools	62
-	Total primary school enrolment	46,715
-	Number secondary schools	13
-	Number vocational training centres	2

7.0 **ENERGY**

14,983 household supplied with electricity out of a total of 42,722 total households in the district (1988 population census). Those supplied with electricity are equivalent to 35%.

ANNEX I

1.0 GENERAL INFORMATION ABOUT TANZANIA

Location: (29^oE-41^o; 1^oS - 12^oS)

Land Frontiers:

To the North: Kenya and Uganda
To West: Burundi, Rwanda and Zaire
To South: Zambia, Malawi and Mozambique
To East: Indian Ocean

AREA OF MAINLAND

Land area 881,289 Sq.Km.
Water area (Inland) 61,495 Sq.Km.
Tanzania area 942,784 Sq.Km.

TANZANIA MAINLAND AREA BY REGIONS (SQ KM)

Total	942,784		
Arusha	84,567	Morogoro	70,799
Coast	32,407	Mwanza	35,248
Dodoma	41,311	Lindi	66,046
Iringa	58,936	D'Salaam	1,393
Kigoma	45,066	Rukwa	75,240
Kagera	39,627	Ruvuma	66,477
Kilimanjaro	13,309	Shinyanga	50,781
Mara	30,150	Singida	49,341
Mbeya	62,420	Tabora	76,151

Mtwara 16,707 Tanga 26,808

Population

TOTAL POPULATION AND LIFE EXPECTANCY FOR TANZANIA - BY REGIONS, 1967, 1978, 1988, 1996:

REGION	TOTAL POPULATION				LIFE EXP. 1988	
	1967 (No.)	1978 (No.)	1988 ('000)	1996** ('000)	M Yrs	W Yrs
Dodoma	709,380	972,005	1,234.9	1,472.5	57	58
Arusha	610,474	926,223	1,348.4	1,784.0	46	51
Kilimanjaro	652,722	902,437	1,106.0	1,703.5	50	50
Tanga	771,060	1,037,767	1,307.3	1,521.8	45	47
Morogoro	682,700	939,264	1,254.0	1,519.4	44	47
Coast	428,041	516,586	636.5	740.9	44	45
Dar es Salaam	356,286	843,090	1,357.6	1,945.7	47	49
Lindi	419,853	527,624	645.0	744.8	57	62
Mtwara	621,293	771,818	887.4	976.7	46	48
Ruvuma	395,447	561,575	781.4	1,001.3	46	48
Iringa	689,905	925,044	1,206.0	1,472.9	45	48
Mbeya	753,765	1,079,864	1,472.7	1,857.0	45	48
Singida	457,938	613,949	789.9	949.4	44	48
Tabora	502,068	817,907	1,033.8	1,232.6	46	50
Rukwa	276,091	451,897	693.3	954.7	44	47
Kigoma	473,443	648,941	857.8	1,047.6	48	50
Shinyanga	899,468	1,323,535	1,768.6	2,194.83	48	51
Kagera	658,712	1,009,767	1,358.8	1,659.5	54	55
Mwanza	1,055,883	1,443,379	1,874.4	2,270.9	53	54
Mara	544,125	723,827	968.6	1,202.0	48	51
Tanzania Mainland	11,958,654	17,036,499	22,582.4	28,252.2	49	51
Zanzibar North	56,360	77,017	97.1	119.0	46	47
Zanzibar South	39,087	51,749	70.2	91.8	45	50
Zanzibar Urban	95,047	142,041	208.4	290.4	46	52
Pemba	72,015	106,290	137.4	172.6	46	48
Pemba	92,306	99,014	127.7	160.4	45	50
Zanzibar Is.	354,815	476,111	640.7	834.2	46	49
Tanzania United Rep.	12,313,469	17,512,610	23,223.1	29,086.4	47	50

Note: The projections are based on the national Population Census of 1988, and the calculated growth rates since the 1978 census.

Source: Bureau of Statistics.

Land Use

	(Ha (millions))	Proportion
Small holder cultivation	4.1	5%
Large scale agriculture	1.1	1%
Grazing Land	35.0	39%
Forest and Wood Lands	44.0	50%
Other Lands	4.4	5%
Total	88.6	100%

Arable Land:

Arable Land (Ha) 3,634,000

Lakes

Victoria	34,850 sq km
Tanganyika	13,350 sq km
Nyasa	5,600 sq km
Rukwa	2,850 sq km
Eyasi	1,050 sq km
Natron	900 sq km
Manyara	320 sq km

Mountain summits (metres above sea level)

Kilimanjaro	5,895
Meru	4,566

Climate

(a) Rainfall

Main rain season on the coast is between March and May and the second season is between October and December. Rainfall is well distributed throughout the year but there is a peak during March and May.

Average maximum temperature (degrees centigrade)

	Jan.	Apr.	July	October
Dar es Salaam	31.6	30.1	28.6	31.3
Arusha	28.9	25.3	21.1	27.3
Dodoma	31.4	28.4	26.0	30.2

Average minimum temperature (degrees centigrade)

	Jan.	Apr.	July	October
Dar es Salaam	23.3	22.9	18.3	31.3
Arusha	12.2	16.9	12.6	27.3
Dodoma	19.2	13.5	16.2	30.2

Gross Domestic Product at factor cost (billion Shs.) 1992.

At current price	688.0
At constant prices	32.2
GDP growth rate at 1976 prices 1985-92	3.69%
Per capita	27,355
At current price	27,355
At constant price	1,280

1.2 SOCIAL SERVICES

HEALTH FACILITIES

YEAR	HOSPITALS	RHC	DISPENSARIES
1960	98	22	975
1980	149	239	2,600
1990	173	276	3,014

Education: Enrolment rates 1995 compared with other East Africa countries

COUNTRY	GROSS ENROLLMENT	
	PRIMARY	SECONDARY
KENYA	94	28
UGANDA	76	20
TANZANIA	67	13

NATIONAL PARKS

National Parks (area in sq km)

PARK	LOCATION AND PARTICULARS
<p>(i) SERENGETI NATIONAL PARK</p>	<p><u>LOCATION:</u> At the border of Arusha & Mara Region, about 32 km from Arusha town</p> <p><u>AREA SIZE:</u> 14,763 square km. It is the largest and oldest Park in Tanzania having been established under the British Colony in 1951. It contains the greatest and most spectacular concentration of plain animals left any where in Africa.</p> <p><u>MAJOR ATTRACTIONS:</u> Wildebeest about 1.7 million, Lions 3,000. About 35 species of animals and 500 species of birds, Buffalos, Chetah, Leopards etc.</p>
<p>(ii) LAKE MANYARA NATIONAL PARK</p>	<p><u>LOCATION:</u> Some 125 Kilometres South West of Arusha town. It was officially established and gazzetted as a National Park in 1960.</p> <p><u>AREA:</u> Lake Manyara National Park covers a total area of 320 square kilometres, 230 kilometres constituting Lake Manyara itself.</p> <p><u>MAJOR ATTRACTIONS:</u> The Rift Valley edge on the West with the vast lake underneath. Natural forest with many natural rivers and springs. Tree-climbing lions, various species of animals plus about 360 species of birds, Elephants, Hippos, Leopards, Baboons etc.</p>
<p>(iii) TARANGIRE NATIONAL PARK</p>	<p><u>LOCATION:</u> South of Arusha town along the Dodoma Highway. It was established in 1970.</p> <p><u>AREA:</u> Tarangire National Park covers some 2,600 Square kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Tree climbing pythons, zebra, kongoni, elephant, buffalo, waterbuck, gazettes and oryx.</p>

<p>(iv)ARUSHA NATIONAL PARK (MOMELA)</p>	<p><u>LOCATION:</u> The Park is located between Mount Meru and Mount Kilimanjaro. Formally Ngudoto National Park until 1967. Was commissioned as National Park in 1960.</p> <p><u>AREA:</u> The park covers some 137 square Kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Ngurdoto Crater, Lake Momella, Mount Meru and the Natural Momela Forests. There are many species of Animals and birds. The most common being African elephant, colobus and velvet monkey, hippo, duicker and a number of bird species.</p>
<p>(v)KILIMANJARO NATIONAL PARK</p>	<p><u>LOCATION:</u> The Kilimanjaro National Park which derived its name from Mount Kilimanjaro is part and parcel of the Mountain. It was established in 1973.</p> <p><u>AREA:</u> The boundaries of the Park include the natural forest under and around the Mountain. It covers some 760 square Kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Mount Kilimanjaro with its three peaks Shira (3,962 metres) Mawenzi and Kibo (5,149 and 5,895 metres respectively) above sea level form the largest part of the Park's attraction. There are also various species of Animals, plants and birds.</p>
<p>(vi)MIKUMI NATIONAL PARK</p>	<p><u>LOCATION:</u> It is situated some 216 km along the Dar - Zambia Highway. It was established in 1964.</p> <p><u>AREA:</u> Mikumi National Park which borders with Africa's largest Game reserve, the Selous is the third biggest National Park after Serengeti and Ruaha National Park and covers 3230 sq km.</p> <p><u>MAJOR ATTRACTIONS:</u> The plains surrounding River Mkata which are rich in flora and fauna are by themselves a wonderful scenarial. The common animals found in the park include zebra, buffalos, elephants, Hippos, lions and the Impalas.</p>

<p>(vii)UDZUNGWA NATIONAL PARK</p>	<p><u>LOCATION:</u> This Park is located South of Mikumi National Park along the Mikumi-Ifakara Highway. The Park was established in 1992.</p> <p><u>AREA:</u> The Park which derives its identity from the famous Udzungwa mountain has an area of 1990 square kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Its unique species of Fauna and Flora which called for its declaration as a National Park. The Udzungwa Mountains and Forests are a good source of Rivers and springs, one of them being the famous Kilombero River, which constitutes the essential part of the multi-hactoral its total Kilombero Sugar Plantations. Additional attractions: Lions, Buffalos, Giraffes etc.</p>
<p>(viii)RUAHA NATIONAL PARK</p>	<p><u>LOCATION:</u> The name Ruaha, is derived from the Hehe word "Luvaha" meaning a river.</p> <p><u>AREA:</u> Park covers an area of 12,950 square kilometres, the second largest in the country. Ruaha National Park which was established in 1964 is situated some 130 km west of Iringa town.</p> <p><u>MAJOR ATTRACTIONS:</u> The Ruaha River by itself is an attraction, leave alone some hundreds of species of Flora which sorround it. Besides there are a lot of Crocodiles, Hippos, Elephants etc.</p>
<p>(ix) KATAVI NATIONAL PARK*</p>	<p><u>LOCATION:</u> It is located in Mpanda District, Rukwa Region. It was established in 1974.</p> <p><u>AREA:</u> The Katavi National Park which is about 40 kilometres South -East of Mpanda town covers an area of 2,253 square kilometres.</p> <p><u>MAJOR ATTRACTION:</u> Lakes Chala and Chada plus other springs and rivers whose waters feed into lake Rukwa constitute a unique environment. Animals in the park include zebra, sable, eland, leopard, buffalo, lion, antelops etc. Animals like, Buffalos, Elephants, Zebras and BushBucks are a good attraction to visitors.</p>

<p>(x) MAHALE NATIONAL PARK</p>	<p><u>LOCATION</u> Located some 120 south of Kigoma town along the shores of lake Tanganyika, Mahale National Park is yet another attraction in Tanzania's Natural Heritages.</p> <p><u>AREA:</u> Mahale nation Park has about 1,613 square kilometres and was gazetted in 1948.</p> <p><u>MAJOR ATTRACTIONS:</u>Chimpanzees are a major attraction. Also there is a good number of monkey species including red colobus monkeys. It is estimated that there are 700 Chimpanzees in Mahale and 15 species of monkeys whose habits tally with those of the Chimps.</p>
<p>(xi) GOMBE NATIONAL PARK</p>	<p><u>LOCATION</u> Gombe National Park is situated 16 km north of Kigoma town in western Tanzania. It is a narrow strip of mountainous country bounded in the east by the eastern rift valley escarpment and by lake Tanganyika in the west</p> <p><u>AREA:</u> Covering some 52 square kilometres. National park, was commissioned in 1968.</p> <p><u>MAJOR ATTRACTIONS:</u>Ever green forests and primates. These include Chimpanzees, Baboons, blue monkey red tails and red colobus.</p>
<p>(xii) RUBONDO NATIONAL PARK</p>	<p><u>LOCATION:</u> The Park which form park of a number of archipelagos in Lake Victoria covers some 240 square Kilometres. it was established in 1977</p> <p><u>MAJOR ATTRACTIONS:</u> The Chimpanzees. But other attractions include, Hippos, Giraffes, and Elephants. the absence of man-eaters such as Lions & Leopards ensures a safe walk in Rubondo Park even some fishing activities with boats under Park wardens are carried out.</p>
<p>(xiii) NGORONGORO</p>	<p><u>LOCATION:</u> It is situated west of Arusha town some 230 kms.</p> <p><u>AREA:</u> The park covers 8320 sq km</p> <p><u>MAJOR ATTRACTION:</u> Wildebeest, Lions, Buffalos, Leopards, Variety of birds species, Giraffes, elephants etc</p>

